LIST FOR THE MACHINES AND EQUIPMENTS TO BE PURCHASED FOR ERZINCAN CHICKEN COMBINED PLANT HAVING 8000 PIECES/HOUR SLAUGHTERING CAPACITY

Item No	Explanation	Amount
FIRST PART MACHINES AND EQUIPMENTS		
1	Suspension Telescopic Conveyor	1 Set
2	Case Carrier Conveyor	1 Set
3	Case Washing Unit	2 Pieces
4	Slaughtering Line Conveyor	1 Set
5	Shocking Cabinet	1. piece
6	Blood Infiltration Pond	1 piece
7	Blood Pump	1 piece
8	Automatic Counter	2 Pieces
9	Conveyor Suspension Cleaning Machine	5 pieces
10	Feather Softener Boiler	3 Pieces
11	Coarse Defeathering machine	2 Pieces
12	Medium Defeathering Machine	2 Pieces
13	Fine Defeathering	1 Piece
14	External Washing Machine	1 Piece
15	Automated Head Breaking Off Machine	1 Piece
16	Feet Dropping and Feet Vacuum	1 Set
17	Waste Water Pump	2 Pieces
18	Waste Separator	1 Pieces
19	Automated Transfer Robots	4 Pieces
20	Giblet Removal Line Conveyor	1 Set
21	Cloaca Opening and Abdomen Splitting Robot	1 Piece
22	Giblet Removing Robot	1 Piece
23	Crop Removing Robot	1 Piece
24	Vacuum Robot	1 Piece
25	Neck Robot	1 Piece
26	Internal External Washing robot	1 Piece
27	Giblet Separation And Transfer Robot	1 Set
28	Giblet Inspection and Transportation Conveyor	1 Set
29	Neck Washing And Transfer Screw Conveyor	1 Piece
30	Gizzard Transfer Screw Conveyor	1 Piece
31	Gizzard Machine	1 Piece
32	Gizzard Washing Machine	1 Piece
33	Dry Cooling Conveyor	1 Set
34	Sorting Line Conveyor	1 Set
35	Sorting Pans	1Set
36	Quality Control Station	1 Piece
37	Cut Up Line	1Set
38	Band Conveyors Belonging to Cut Up Line	1Set
39	Automated Fillet Line	1Set
40	Empty Box Transportation Conveyor	1Set
41	Bagging Machine	10 Pieces

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42	Bag Closing Machine	15 Pieces
43	Product wit h dish packaging machine	7 Pieces
44	Product with dish weighing and labeling machine	7 Pieces
45	Bagged product weighing and Labeling Machine	10 Pieces
46	Dish Boxing and Box packaging machine	7 Pieces
47	Box shrinking machine	2 Pieces
2. PART MACHINES AND EQUIPMENTS		
48	Frozen Storage Shelf System	1 Set
3. PART MACHINES AND EQUIPMENTS		
49	Sanitation and Hygiene Equipments	1 Set
4. PART(MACINES AND EQUIPMENTS		
50	Rendering Unit	1 Set

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I- SUBJECT

It is **Telescopic Conveyor** supply and installation work which will be used in Erzincan Combined Chicken Plant Alive Poultry Admission Hall

This conveyor will start from alive poultry transportation vehicle body and will continue until alive poultry transportation conveyor. Position and forms of conveyor has been indicated in layout plan.

II- TECHNICAL PROPERTIES

- Conveyor will completely be manufactured from AISI 304 grade material.
- Conveyor's width will be approximately 700 mm, and length will be obtained from layout plan. Also dimensions of alive chicken transportation cases will be considered in this transportation.
- Conveyor should be able to be move up and down(± 1200 mm) by means of hydraulics system.
- Conveyor should be able to be shortened and extended by means of hydraulic system.
- Minimum length which conveyor can be shortened will be approximately 5 m.
- Conveyor will be portable type.
- During operation; conveyor will operate while positioning on fixed stands.
- Conveyor stand dimensions will be approximately 40x40x2 mm
- Conveyor will provide position and location change by means of rubber tires.
- Conveyor band should be mounted by selecting from PVC material which is proper with food.
- Frame steel sheet thickness should be minimum 2 mm.
- Band will be driven by motor and motor should have minimum 2,2 kW power and should have inverter system.
- Motor's revolution should be adjustable according to conveyor's speed.
- There will be system in conveyor which will prevent band tensioning and band sliding.
- Band sagging below conveyor will be prevented, but flexure will not occur during rotation in rollers which will be used or manufactured for preventing sagging and there will not ne jamming in roller bedding.
- In conveyor; there will be rotation rollers in every 2 meters
- Material wall thickness for conveyors will be minimum 2 mm and it should be manufactured from AISI 304 material having minimum diameter 50 mm
- Chromium roller bearings will be used in rollers and oil seals will be installed over fitting surfaces of roller and shaft parts and grease nipple will be used for greasing.
- Wheel shaft will be manufactured from stainless material.
- There will be two pieces of start-stop buttons at easily reachable place of conveyor.

III- GENERAL SUBJECTS:

- Conveyor will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for conveyor
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for conveyor will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

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- A user manual will be prepared for conveyor and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with conveyor which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Conveyor will have CE certificate.
- Necessary precautions for worker safety should have been taken in conveyor
- During manufacturing stage, conveyor will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification and recovery methods of breaking of mechanism.
- Electricity, water, etc. connections which are necessary for conveyor will be implemented by contractor company. These connections cover the connections from conveyor unit to closest power supply line.

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I- SUBJECT:

It is **Alive Poultry Case Transportation Conveyor** supply and installation work which will be used in Erzincan Chicken Combined Slaughtering Hall.

This conveyor will start from alive poultry suspended telescopic conveyor and will continue until alive poultry suspension, case washing and clean empty case loading departments. Position and forms of conveyor are indicated in layout plan.

II- TECHNICAL PROPERTIES

- Conveyor will completely be manufactured from AISI 304 grade material.
- Conveyor's width is approximately 700 mm and length will be obtained from layout plan. Also dimensions of alive poultry transportation cases will be considered during these calculations.
- There will be double row plastic chains at conveyors. -
- Frame steel sheet thickness will be at less 2 mm
- Conveyor will be footed type and will be manufactured from stainless material and its dimensions will be 40x40x2
- Conveyor chain will be selected from polyamide material which is suitable for food.
- Chain will be moved by driving with motor and motor should have minimum 2,2 kW power and should have inverter system.
- There will be speed adjustment system in conveyor.
- Motor revolution will be adjustable according to line speed.
- There will be system in conveyor which will prevent band tensioning and band sliding.
- Band's sagging at conveyor's lower parts will be prevented, flexure will not occur during rotation movement in rollers which are manufactured and used for preventing this, jamming will not occur in roller bedding.
- Tensioning drum will be manufactured from polyamide material; it will be adhered with knurled type for preventing band sliding and for providing tensioning.
- There will be two pieces of emergency stops in a part of conveyor which can be reached easily.
- There will be one rotation roller in every two meters.
- Roller's material wall thickness will be minimum 2 mm and it will be manufactured from AISI 304 material with minimum diameter of 50 mm
- Chromium roller bearings will be used rollers, oil leak proof seals will be used in fitting parts of roller and shaft and grease nipple will be installed for greasing.
- Chains will be directed by drums which were manufactured from polyamide material, drum roller bearings will be manufactured from chromium, roller bearings will have covers where greasing is not requested and they will not have cover and will have oil seal where lubrication is requested.
- Wheel shaft will be manufactured from stainless material.

III- GENERAL SUBJECTS:

- Conveyor will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Conveyor.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Conveyor will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

- A user manual will be prepared for Conveyor and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Conveyor and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Conveyor which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Conveyor will have CE certificate.
- Necessary precautions for worker safety should have been taken in Conveyor.
- During manufacturing stage, Conveyor will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Conveyor.
- Electricity, water, steam etc connections which are necessary for Conveyor will be implemented by contractor company. These connections cover the connections from Conveyor unit to closest power supply line.

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I- SUBJECT

It is Automated Case Washing Unit supply and installation work which will be used in Erzincan Chicken Combined animal admiission plant and storage house

II- TECHNICAL PROPERTIES:

- Washing unit will be three unit- Steam Heated (Pre washing and washing departments are Steam Heated)
- Washing unit will be manufactured from AISI 304 grade material.
- Cases will be designed such that they can be washed with 45^0 Slope position.
- Prewashing system will be installed for preventing the entrance of rough impurities into case washing machine.
- Case washing unit will speed adjusting unit and inverter system.
- Washing unit will have the property to be adjustable based upon case dimensions.

Pre Washing Operation

- In prewashing, cases will be subjected to prewashing treatment by means of 5-6 bar pressurized pumps.
- There will be filter system including separator in prewashing unit and this system will prevent rough impurities to enter lower reservoir and clogging of nozzles.
- At the same time prewashing unit will have a system which will collect the waste water which has come through nozzles into its reservoir and transfer those water to separator and then waste water channel. Connection with waste water channel will be implemented by contractor.
- Water pressure in pre washing department will be between 5-6 bars and water flow rate is between 2-3 tons/hour.
- Hot water pressure in pre washing department will be between 5-6 bars and its temperature will be 40^0C

Final Washing Operation:

- In this department cases will be washed with pump by using water having solution which has 5-6 bars pressure at 80-85^0C.
- There will be filter system having separator in this department.
- At the same time this unit will also have a system which will collect the waste water which has come through nozzles into its reservoir and transfer those water to separator and then waste water channel. Connection with waste water channel will be implemented by contractor.
- Steam capacity will be 1 ton/hour and pressure will be 2 bars in this department.

Rinsing Operation

- In this department cases will be rinsed with pump having pressure between 5-6 bars.
- There will be filter system having separator in this system.
- Reservoir steel sheet thickness will be min 3mm.
- Body profile dimensions will be 40x40x2mm
- Outer steel sheet thickness will be min 1,5 mm
- Rinsing capacity will be 1.000 cases/hour
- 3 pieces of pump which will be used in this system will be centrifugal type and each will have minimum 1,1 kw power should have 40 tons/hour capacity.

Energy;

- Pumps and motors should have inverter system at energy usage.
- Electrical panel will have IP65 protection class and panel will include PT 100 temperature sensor, display, inverter revolution setup and revolution display.

III- OTHER SUBJECTS:

- Case washing machine unit will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for case washing
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for case washing will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for case washing unit and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with case washing unit which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Case washing unit will have CE certificate.
- Necessary precautions for worker safety should have been taken in case washing unit
- During manufacturing stage, case washing unit will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of case washing unit

- Electricity, water, steam, etc. connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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I- SUBJECT:

It is overhead type **Slaughtering Line Conveyor** which will extend from alive poultry suspension to giblet removing which will be used in Erzincan Chicken Combined Plant slaughtering hall.

Slaughtering line conveyor will have the capacity to make **8000 pieces** of slaughtering of chicken per hour whose weight is between 1600-3000 gr. This line will be constructed as a whole and Primarily, line conveyor consists of **Line Chain, Rails, Wheels,** and **Fork Body, Suspension,** and **Suspension Flat Steel** which provides connection between fork body and suspension **ÇILBIR (HALTER) CHAIN** which prevents overlapping of suspensions, **Motor Gearbox** which provides movement of conveyor, **Pulleys and Suspensions** where chicken are hung, which are or will be needed during manufacturing stage. Form and position of line have been displayed in Layout Plan.

II- TECHNICAL PROPERTIES:

A- LINE CHAIN

- It will be in DIN EN 1024 and short link calibrated.
- It will have 8x25,4 dimensions
- Chain will be electro galvanize coated.
- It will be installed such that distance between to fork link point is 15 cm.
- There will be automatically sensing pneumatically tensioning system over line which will provide efficient operation of chain in conveyor system. (This system will provide chain operation at desired tensioning by being enabled by means of sensors in tensioned and loosened cases so required tension will be provided)
- There will be chain lubrication unit over line

B- RAILS

- Rails will be sigma profile and their material will be Inox (AISI304).
- Rails should be manufactured after being designed to allow move of Trolley easily.
- Material wall thickness should be at least 5 mm

C- WHEELS

- Wheels will be manufactured from **Delrin** material and will have high mechanical strength.
- Wheels will be durable against moist, water, and several chemical materials.
- They will have high pulling and bending strength, but it will have low friction property and will be durable against impacts.
- Wheels will have type and dimensions which are suitable with rails to be manufactured.
- Wheel rotation will be provided by drawn ball and system will have outer cover.
- Wheel shaft will be manufactured from stainless material

D- FORK BODY

- It will be manufactured from aluminum alloyed cast material.
- It will be bearing for the wheels which are centered with stainless shaft over it.
- It will be manufactured such that suspension flat steel will be hung under it.
- It will be manufactured such that it will be driven by connecting conveyor chain inside body.

E- SUSPENSİONS

- It will be designed such that one suspension will be in each 15 cm
- It will be designed such that chicken will be hung from both feet.
- Suspensions will be manufactured from AISI 304 stainless bar profile whose inner part is full and having diameter of 8mm.
- Suspension will be connected to suspension flat steel by stainless chain
- Suspension flat steel and suspensions will be fastened with halter chain from suspension joining points and overlapping with each other will be prevented.

F- SUSPENSİON FLAT STEEL

- It is the part which connects fork body and chicken suspension by means of chain.
- It will be manufactured from AISI 304 stainless steel, and its dimensions will be 5x20x175 mm
- Material wall thickness will be 5 mm and width will be 15 cm.
- There will not be sharp corners.
- Its length will be approximately 30 cm.
- It will be connected from halter chain from lower suspension joining place.

G-HALTER CHAIN

- Halter chain will be manufactured from inox material.
- Halter chain will be installed in every 5 links through line.
- Chain will be DIN 5685-1 norm
- Its dimensions will be 5x35x9

H-MOTOR GEARBOX

- Motor power and number will be selected according to load to be carried and distance.
- Its revolution will be between 12-16 rpm.
- Power will be 380V-50 Hz
- Motor will also be adaptable to inverter system.
- Its efficiency will be at least %95.
- There will be **Emergency Stop** systems in several locations of system for providing the safety of conveyor system.
- There will be a system over conveyor line which will automatically stop the system in failure and damage cases

I- PULLEYS

- Pulleys will be manufactured from aluminum alloy cast material.
- Pulleys will have 90^0 and 180^0 rotation kits and pulley diameters will be at dimensions such as 290 ± 10 mm and 490± 10
- Pulley supply and installation will be implemented with amount which was defined in design and project which was implemented for pulleys.
- Pulley connections with conveyor line will be demountable, and it will be done completely with bolt system.
- Pulleys will be installed with shaft which is connected to corner return at center.
- Shafts will be mounted to pulley center via roller bearing and they will be manufactured from steel material which is suitable with their function.
- Pulley surface which contacts with chain will be manufactured from Delrin material, it will have channels and slices which will allow engaging with change easily.
- Pulley slices will be manufactured from injection **TECHNICAL SPECIFICATION FOR SLAUGHTERING LINE CONVEYOR** pressed plastic material.
- Slices will be connected over pulley by means of system which includes bolt.
- Pulley will have central lubrication system.

III- GENERAL SUBJECTS:

- Line conveyors will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for line conveyors.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Dimensions of line conveyor will be obtained from layout plan
- Project implementation, drawings and calculations for line conveyors will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for slaughtering line conveyors and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line conveyors and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with line conveyors which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Line conveyors will have CE certificate.
- Necessary precautions for worker safety should have been taken in line conveyors. During manufacturing stage, line conveyors will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of line conveyors.
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- Electricity, water, steam etc connections which are necessary for line conveyors will be implemented by contractor company. These connections cover the connections from Line conveyors unit to closest power supply line.

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I- SUBJECT

It is **Shocking Cabinet** supply and installation work which will be used in Erzincan Chicken Combined Plant slaughtering hall

II- TECHNICAL PROPERTIES

- Cabinet will be installed over slaughtering line and it will be mounted such that it will make shocking operation during passing live chickens' suspended passing.
- Cabinet will be manufactured from AISI 304 material.
- Cabinet will have shocking capacity which will allow **8000 pieces** of slaughtering per hour.
- Cabined will be watered shocking type.
- There should be barriers in cabinet which will prevent fluttering during chicken's passing
- Cabinet will operate with electronically circuit.
- Electrical current should be adjustable
- Current will be given controlled way which will not cause death in chickens.
- Electrical current which will be used for shocking will be between 25-40 volts.

III- OTHER SUBJECTS:

- Cabinet will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for cabinet
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for cabinet will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

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- A user manual will be prepared for cabinet and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with cabinet which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Cabinet will have CE certificate.
- Necessary precautions for worker safety should have been taken in cabinet
- During manufacturing stage, cabinet will be controlled by institution’s officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user’s technical s staff about usage, maintenance and repair intervention and notification and recovery methods of breaking of mechanism

- Electricity, etc. connections which are necessary for cabinet will be implemented by contractor company. These connections cover the connections from cabinet unit to closest power supply line.

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I- SUBJECT

It is **Blood Collection Pond** supply and installation work which will be used in Erzincan Combined Chicken Plant slaughtering hall

II- TECHNICAL PROPERTIES

- It will have stand and have V channel type pond, its connections will be made with bolts.
- Its material will be formed by AISI 304 grade material
- Its width will be 3.000 mm, Length will be 25.000 mm and Height (Lower base height) will be 1.200 mm. But final dimensions will be obtained from layout plan.
- Material wall thickness will be (steel sheet thickness) will be minimum 2 mm
- Frame will have 40x60x3 dimensions and bonding will be implemented from bottom in every 1.500 mm
- Pond carriers(stands) will be constructed from square profile and will have dimensions of 40x40x500 mm and it will have level adjusting system from below.
- Pond dimensions will be obtained from layout plan.
- Pond will have structure which will be easily cleanable and maintainable
- There will be motor driven screw conveyor system throughout the base of pond which will provide blood flowing
- Motor power will be minimum 1,1 kw
- Pneumatically diaphragm pump will be placed at outlet of pond for discharging the blood to blood collection tank.

III- GENERAL SUBJECTS

- Pond will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for pond
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for pond will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for pond and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with pond which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Pond will have CE certificate.

- Necessary precautions for worker safety should have been taken in pond
- During manufacturing stage, pond will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of pond
- Electricity, water, steam etc. connections which are necessary for pond will be implemented by contractor company. These connections cover the connections from pond unit to closest power supply line.

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I- SUBJECT

It is **Blood Pump** supply and installation work which will be used in Erizincan Combined Chicken Plant slaughtering hall

II- TECHNICAL PROPERTIES

Primarily Blood Pump with diaphragm consists of pneumatically cylinder, pump body, blood collection reservoir, machine carcass and fittings and all material which are or will be necessary during manufacturing stage.

A- BODY

- Pump body will be manufactured from AISI 304 CrNi material and all surface and welded parts will be polished.
- Stands will be manufactured from AISI 304 stainless profile it will have rubber wedged stainless bolt and its height will be adjustable.
- Pump will have the capacity to discharge blood which will present after slaughtering of **8.000 pieces** of chicken.
- Pump will have pneumatic diaphragm.
- Pump's overhead pipe line will be implemented within scope of this work.
- Pump's air flow rate is approximately 800 lt/min and necessary air pressure is approximately 6 bars. In this case pump's water flow rate will be 2,5 tons/hour. (Pump will pump 2,5 tons of water out of blood.)

B- RESERVOIR

- Reservoir will be manufactured from AISI 304 grade material and all surfaces including external and internal and welded parts will be polished.
- Upper opening of reservoir where blood will be connected (blood' s entering opening to reservoir) will be 0,50 m^2 and reservoir's height will be 50 cm
- There will be grids whose clearances are 2 cm will be located in entrance opening of reservoir. (There will be 4 cm clearance between two successive bars of grid). Grid will be able to be opened by rotation around one side.
- Reservoir will have conical structure by getting narrower at bottom side which will ensure ingress of blood to reservoir.
- Reservoir outlet edge will be connected to pump with a connection whose diameter is minimum Ø 100 mm

C-PNEUMATICALLY CYLINDER

- Cylinder's material will be stainless steel.
- It will be used for driving pump diaphragms.

D- CONNECTIONS

- Pump body, pump reservoir, fittings, and all pipes will be manufactured from stainless steel and all surfaces will be polished
- Pipe connection will allow dismounting of pipe if it is clogged pr has failure. (Pump with reservoir and pump outlet connection)
- Pump outlet will be brought to blood tank with pipe line having minimum Ø 100 mm pipe line
- Air pipe line will be 1"
- Compressed Air pipe line is included in this work (blood pump manufacturing and installation work.)

III- GENERAL SUBJECTS

- Pump will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for pump

-All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.

- Project implementation, drawings and calculations for pump will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for pump and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with pump which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Pump will have CE certificate.
- Necessary precautions for worker safety should have been taken in pump
- During manufacturing stage, pump will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of pump
- Electricity, water, air etc. connections which are necessary for pump will be implemented by contractor company. These connections cover the connections from pump unit to closest power supply line.

I- SUBJECT:

It is **Automatic Counter** supply work which will be used in slaughtering hall of Erzincan Chicken Combined Plants.

II- TECHNICAL PROPERTIES:

- One of them will be installed before shocking cabinet and other will be installed at the end of giblet removal department (at the inlet of air chiller)
- Frame will have 40x40x2 mm dimensions and will be produced from AISI 304 stainless profile.
- Counter will have digital display.
- It should be designed to allow to display all trolleys(products) separately.
- Counter should be programmable to retrieve daily, monthly and yearly information
- Digital displayed counter which was installed over control cable counts the slaughtered chicken by means of proximity switch's signals and records to display.
- It should be adjustable according to chicken dimensions.
- Device will keep last count in memory at least for 3hours in case of power loss or system shut down.
- It will have minimum 5 digits.
- All information will be transferred to general system room

III- GENERAL SUBJECTS:

- Counter will be suitable with subjects which are specified in technical specification.
- Two years warranty will be grantedfor counter.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for counter will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for counter and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with counter and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with counter which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Counter will have CE certificate.
- Necessary precautions for worker safety should have been taken in counter
- During manufacturing stage, counter will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of counter.
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- Counter will be delivered after being installed over system and in operable status.
- Electricity, internet, computer etc connections which are necessary for counter will be implemented by contractor company. These connections cover the connections from Counter unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **conveyor and suspension cleaning machine** supply work which will be used for cleaning slaughtering line in slaughtering hall of Erzincan Chicken Combined Plant
Primarily, automatic conveyor cleaning brush consists of brushes, guard, motor group and fittings and all other materials which are will be necessary in manufacturing stage
There will be one piece in each chain conveyor at slaughtering house

II- TECHNICAL PROPERTIES:

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A- GENERAL

- All metal parts for automatic conveyor cleaning machine will be produced from AISI 304, all surfaces and welded parts will be polished.
- One of automated conveyor cleaning machine will be installed after feet dropping, second will be installed after air chiller at giblets removal machine and third one will be installed at the end of air chiller line.
- Machine height and angle between ground will be adjustable.
- Motor power and gearbox conversion ratio will be proper with work.
- Motor will have IP 55 protection class and triphase 50 Hz
- 2 Pieces of conveyor in water nozzle washing department will spray water to brushes with proper angle

B- BRUSHES

- There will be at least 2(two) pieces of brushes. Brush wires will have length, hardness and density which will allow cleaning impurities.
- There will be one electrical motor and gearbox for each brush.
- Brushes will perform cleaning by rotating reverse with each other.
- Brushes will be durable against impacts.
- Brush length will be minimum 1000 mm

C- GUARDS

- There will be guards which will prevent spreading the particles which are scattered around because of rotation of cleaning brushes and these brushes will have maximum particle trapping capacity without movement of suspensions and cleaning.
- Wastes will be collected to Discharge tray which is located at bottom part and then will be discharged.
- It will be manufactured from AISI 304 material and steel sheet will have minimum 1,5 mm thickness.

D- CONNECTIONS

- Machine body, guard, motor, transfer groups, and all fittings will be stainless steel and all surfaces will be polished.
- Machine installation will be implemented by disassembly bolts.

III- GENERAL SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine.

- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.

- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in machine.
- During manufacturing stage, machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of machine.
- Electricity, water, steam connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from Machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Feather Softener Boiler** supply work which will be used in Erzincan Chicken Combined Plant Slaughtering hall

II- TECHNICAL PROPERTIES

- Feather softening will completely be made from AISI 304 stainless steel.
- Body steel sheet thickness will be 2 mm. Lower part of body (water reservoir part) will be isolated with rock wool having 50 mm thickness and then will be coated with 1,5 mm AISI 304 stainless steel sheet.
- Body carrier profiles will be designed to prevent formation of any deflection when profile is filled with water. Profile selection is free provided that profiles were manufactured from AISI 304 grade stainless steel.
- Feather softening machine will be designed to be 15 cm above ground. (For preventing lower parts trapping impurities and for easy cleaning). Carriers stands will be adjsutable with respect to ground.
- There will be covers from end to end at both sides of boiler and covers will be hinged and will be able to be opened and closed. Steel sheet thickness in these covers will be 1,5 mm.
- Steel sheet thickness for hood over boiler will be 1,5 mm. Upper part construction of boiler will be designed to carry chicken conveyor which will pass through it.
- Feather softening boiler will have 3 passing
- There will be blower system for providing boiler water temperature to be homogenous. Blower system will have 2 pieces of 5,5 kW motor and 5000 m^3/air flow rate. Air collector will be manufactured from AISI 304 grade material and will extend throughout boiler(will be connected with bolts) and it will have sufficient diffusers over it.
- Moisture air which has been released from boiler will be aspirated towards out of building by means of proper channel dimensions. Aspirator power will be 10000 m3/h for each boiler. Channel cross sections will be designed according to these dimensions and öak 8 m/s speed. Channels will have 1 mm wall thickness and will be manufactured from AISI 304 stainless steel. Channels will be installed under roof of at loft depending on the construction status as it is approved by institution. (Institution is free to select the route)
- Water level and inlet will be electronically controlled.
- Steam inlet will be controlled according to boiler water temperature by means of proportional steam valves. Electronic hardware which will be necessary for operation of proportional steam valve will be included.
- Water temperature control will be implemented by digital thermostat. Steam heating system will be implemented by stainless curtain panels. Curtain panels will be extended with boiler from end to end. Curtain panel dimensions will be estimated 1500x700 mm

-There wil be water temperature control with digital thermostat

- Condense stop will be used in steam system
- Boiler length will be approximately 8m (+- 0,2m) mt.
- There will be boiler water discharge tap having at least 2 inches size
- Total duration for chicken to remain inside boiler will be approximately between 150 - 180 seconds
- Temperature for feather softening water will be around 50-55 ^{0}C

OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

III- GENERAL SUBJECTS:

- Feather Softening Boiler will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Feather Softening Boiler.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Feather Softening Boiler will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Feather Softening Boiler and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Feather Softening Boiler and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Feather Softening Boiler which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Feather Softening Boiler will have CE certificate.
- Necessary precautions for worker safety should have been taken in Feather Softening Boiler
- During manufacturing stage, Feather Softening Boiler will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Feather Softening Boiler
- Electricity, water, steam etc. connections which are necessary for feather softener boiler will be implemented by contractor company. These connections cover the connections from feather softener unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Coarse Defeathering Machine** supply work which will be used in Erzincan Combined Chicken plant Slaughtering Hall

II- TECHNICAL PROPERTIES

- Machine's estimated length will be 3200(+- %5)mm
- Carrier stands will be manufactured from 100x100x2 AISI 304 stainless box profile.
- Upper frame and guide steel sheet thickness will be 4 mm and unit steel sheet thickness will be 2,5 mm
- Construction will completely be manufactured from AISI 304 grade stainless material.
- It will be composed of two reciprocal units.
- In each unit There will be total 64 pieces of de- feathering disks in which are easily demountable.
- In each disk there will be easily demountable 10-12 pieces of defeathering rubber.
- Estimated hardness of rubber will be 70 shores.
- Disk's Shell case to body is manufactured from hard plastic.
- Rubber will have antimicrobial property
- Part which will install disk over body will be manufactured from cast iron or hard plastic.
- Rubber parts will be manufactured from material which does not have any inconvenience with contact with food.
- There will be single row ball stainless plastic shell case beddings.
- Disks will be driven by 8 pieces of 2,2 kW, 1400 rpm belt and pulley system.
- Space between two units will be able to opened after slaughtering for providing easy cleaning and maintenance.
- Lower disks and upper disks will be angular adjustable. Distance between blocks will be able to be increased or decreased without changing angle.
- Conveyor suspension guides will present in system which will prevent line impact and vibration which may occur during deferathering at machine and those will be adjustable.
- There will be water sprays above machine which will provide feathers to flow to the channel.

III- OTHER SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including
the equipments which are necessary to be used and information about probable failures related with machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.

- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in machine
- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of machine
- Electricity, water, steam connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Medium Defeathering Machine** supply work which will be used in Erzincan Combined Chicken plant Slaughtering Hall

II- TECHNICAL PROPERTIES

- Machine's estimated length will be 3200 (+- %5) mm
- Carrier stands will be manufactured from 100x100x2 AISI 304 stainless box profile.
- Upper frame and guide steel sheet thickness will be 4mm and unit steel sheet thickness will be 2,5 mm
- Construction will completely be manufactured from AISI 304 grade stainless material.
- It will be composed of two reciprocal units.
- In each unit There will be total 64 pieces of de- feathering disks in which are easily demountable.
- In each disk there will be easily demountable 10-12 pieces of defeathering rubber.
- Estimated hardness of rubber will be 60 shores.

Rubber will have antimicrobial property

- Part which will install disk over body will be manufactured from cast iron or hard plastic.
- Rubber parts will be manufactured from material which does not have any inconvenience with contact with food.
- Disk's Shell case to body is manufactured from hard plastic.
- There will be single row ball stainless plastic shell case beddings.
- Disks will be driven by 8 pieces of 2,2 kW, 1400 rpm belt and pulley system.
- Space between two units will be able to opened after slaughtering for providing easy cleaning and maintenance.
- Lower disks and upper disks will be angular adjustable. Distance between blocks will be able to be increased or decreased without changing angle.
- Conveyor suspension guides will present in system which will prevent line impact and vibration which may occur during deferathering at machine and those will be adjustable.
- There will be water sprays above machine which will provide feathers to flow to the channel.

III- OTHER SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with machine and recovery methods for them.

-

- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in machine
- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of machine
- .
- Electricity, water, steam connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Fine Defeathering Machine** supply work which will be used in Erzincan Combined Chicken plant Slaughtering Hall

II- TECHNICAL PROPERTIES

- Machine's estimated length will be 3500(+- 5%) mm
- Carrier stands will be manufactured from 100x100x2 AISI 304 stainless box profile.
- Upper frame and guide steel sheet thickness will be 4 mm and unit steel sheet thickness will be 2,5 mm
- Construction will completely be manufactured from AISI 304 grade stainless material.
- It will be composed of two reciprocal units.
- In each unit There will be total 80 pieces of de- feathering disks in which are easily demountable.
- In each disk there will be easily demountable 8 pieces of defeathering rubber.
- Estimated hardness of rubber will be 55-60 shores.

Rubber will have antimicrobial property

- Part which will install disk over body will be manufactured from cast iron or hard plastic.
- Rubber parts will be manufactured from material which does not have any inconvenience with contact with food.
- In lower unit There will be total 20 pieces of de- feathering disks in which are easily demountable.
- In lower unit there will be easily demountable 8-10 pieces of defeathering rubber.
- Disk's Shell case to body is manufactured from hard plastic.
- There will be single row ball stainless plastic shell case beddings.
- Disks will be driven by 8-10 pieces of 2,2 kW, 1400 rpm belt and pulley system.
- Space between two units will be able to opened estimated 1 m after slaughtering for providing easy cleaning and maintenance.
- Lower disks and upper disks will be angular adjustable. Distance between blocks will be able to be increased or decreased without changing angle.
- Conveyor suspension guides will present in system which will prevent line impact and vibration which may occur during deferathering at machine and those will be adjustable.
- There will be water sprays above machine which will provide feathers to flow to the channel.

III- GENERAL SUBJECTS:

- Defetahering Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in machine
- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject. Electricity, water, steam connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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I- SUBJECT

It is **External Washing Machine** supply and installation work which will be used in Erzincan Combined Chicken plant Slaughtering Hall

II- TECHNICAL PROPERTIES

- Following the defeathering operation Washing machine will have the capacity to perform external washing of **8000 pieces of** chicken per hour
- Machine material will be manufactured from stainless steel.
- Machine will have nozzles having high pressure property and spraying unit for internal washing.
- Machine will have nozzles having high pressure property and spraying unit for external washing.
- Machine will be fed with normal mains water which has 5 bars pressure.
- Machine will have speed adjusting system for spraying which is used for external washing
- Machine will have a cabinet which is durable, compliant, prevents wastes and which is transparent.

III- GENERAL SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in Machine
- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject. After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Machine
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- Realized manufacturing will be suitable with engineering and craft rules.
- Machine will be delivered after being installed over system and in operable status.
- Electricity, water, steam connections which are necessary for Machine will be implemented by contractor company. These connections cover the connections from Machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Automated Head and Trachea Breaking off Mechanism** supply and installation work which will be used in Erzincan Chicken Combined Plant Slaughtering Hall

II- TECHNICAL PROPERTIES

- Mechanism will have the capacity to make **8000 pieces of** breaking off operation per hour.
- Breaking off mechanism installation will be made in slaughtering line route.
-
- Mechanism will break off head with trachea without giving harm to integrity.
- Breaking off mechanism will completely be manufactured from AISI 304 stainless material.
- Space between breaking off apparatus should be adjustable.
- Head will be broken off by pulling by means of screw conveyor or palette system, trachea and head will be removed from body.

III- OTHER SUBJECTS:

- Breaking off mechanism unit will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for breaking off mechanism
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for breaking off mechanism will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for breaking off mechanism and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with breaking off mechanism which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Breaking off mechanism will have CE certificate.
- Necessary precautions for worker safety should have been taken in breaking off mechanism
- During manufacturing stage, breaking off mechanism will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification and recovery methods of breaking of mechanism

- Electricity, water, steam, etc. connections which are necessary for breaking off mechanism will be implemented by contractor company. These connections cover the connections from breaking off mechanism unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Feet Dropping and Feet Vacuum Machine** supply and installation work which will be used in Erzincan Combined Chicken plant Slaughtering Hall

II- TECHNICAL PROPERTIES

- Machine will have the capacity to drop **8000 pieces of** chicken feet which are cut.
- Machine frame and body will be manufactured from AISI 304 grade material
- Machine will have assembly which will automatically drop the feet which are in movement in suspended position at suspension over machine.
- There will be guide hoods in system which will bring feet to dropping position
- Dropping assembly will have height and slope adjusting property
- Machine should be electrical motor driven and dropping operation will automatically be enabled while conveyor is moving.
- There will be feet collection reservoir in machine
- Vacuum pump will present together with machine
- Collected feet will be transferred to rendering plant by means of vacuum pump
- Motor and pump power will be selected according to capacity
- There will be emergency stop property in system for both operations.

III- GENERAL SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor. .
- Project implementation, drawings and calculations for Machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in Machine
- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject. After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Machine
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- Electricity, water, etc. connections which are necessary for Machine will be implemented by contractor company. These connections cover the connections from Machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is pump supply work which will discharge the water which had released in Erzincan Chicken Combined Plant Slaughtering hall

II- TECHNICAL PROPERTIES

Primarily waste water pump consists of pump frame, motor, machine carcass and fittings and all other materials which are /will be necessary during manufacturing case.

A- BODY

- Pump body will be manufactured from AISI 304 CrNi material and all surface and welded parts will be polished.
- Carcass will be manufactured from AISI 304 stainless profile it will have rubber wedged stainless bolt and its height will be adjustable.
- It will have the capacity to discharge 60 m^3 waste water per hour.
- Maximum discharge height will be 8 meter
- Frame thickness will be minimum 8 mm

B- MOTOR

- Motor power will be specified according to operational conditions and machine layout.
- Pumps will be operated with by driving triphase 50 Hz electrical motor
- Motor protection will be IP 55 or higher
- Electrical motor will be connected to pump shaft by coupling or belt

C- CONNECTIONS

- Pump body, carcass, fittings, and all pipes will be manufactured from stainless steel and all surfaces will be polished
- Pipe connection will allow dismounting of pipe if it is clogged pr has failure. (Pump body with pump inlet and pump outlet connection)
- There will be valve before pump's waste water suction point and it will be able to be by passed in failure cases
- Pump outlet will be minimum Ø 160 pipe line
- Pumps will be statically and dynamically be balanced.

III- GENERAL SUBJECTS

- Pump will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for pump
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for pump will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

- A user manual will be prepared for pump and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with pump which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Pump will have CE certificate.
- Necessary precautions for worker safety should have been taken in pump
- During manufacturing stage, pump will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of pump
- Electricity, water,steam etc. connections which are necessary for pump will be implemented by contractor company. These connections cover the connections from pump unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Separator machine** supply work which will be used for removing waste water which had occurred in slaughtering hall of Erzincan Chicken Combined Plant slaughtering hall from feather and Giblets

II- TECHNICAL PROPERTIES:

Primarily separator is composed of machine body, drum, water collection reservoir and fittings and all other materials which are/will be necessary during manufacturing.

A- BODY

- It collects the water which was poured from nozzle and will bring to separator via Ø160 pipes and will pour to drum in cylindrical form. Screw conveyor which is located inside drum will provide discharge of waste after getting rid of it.
- Machine will have sufficient width which will prevent clogging at waste discharge outlet.
- Separator body and all metal accessories will be manufactured from AISI 304 material, all surface and welded parts will be polished.
- Steel thickness will be minimum 1,5 mm
- Stands will be manufactured from AISI 304 profile and will have rubber wedges and stainless bolts.
- Machine steel construction will be constructed from 100x50 rectangular profile whose wall thickness is minimum 2 mm.
- There will be at least two inspection covers over body. Those covers will be located at lateral side of machine and will have size and location which will allow intervention to Internal points.

B- DRUM

- Drum having Ø950x3000 cylindrical form performs separation of water which is pumped by waste water pump from feather and Giblets.
- Drum shall be manufactured from AISI 304 material and both Internal and external surfaces and welded parts will be polished.
- Drum steel sheet will have thickness which will resist necessary strength.
- There will be holes whose diameter is maximum 1mm (D≤1mm) will be located over reservoir having cylindrical form and distance between to successive hole center will be maximum 2D(it will be in form of screen)

C- MOTOR

- Motor will be triphase, 50 Hz and its power will be minimum 1,5 kw
- Gearbox conversion ratio will be specified according to proper rotational speed of drum and suitable moment ratio.
- Motor protection class will be IP55 or higher.

D- CONNECTIONS

- Separator body, drum, water reservoir, fittings and all pipes will be stainless steel and all surface will be polished.

III- OTHER SUBJECTS:

- Separator will be suitable with subjects which are specified in technical specification.
- Separator will be awarded with two years warranty against manufacturing and installation defects.
- All materials and calculations which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for separator will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- Performed manufactures will be suitable with Engineering and Craft Rules
- A user manual will be prepared for separator and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with separator and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with separator which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Separator will have CE certificate.
- Necessary precautions for worker safety should have been taken for separator and its connections
- During manufacturing stage, separator will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of pump.
- Electricity, water, steam etc connections which are necessary for separator will be implemented by contractor company. These connections cover the connections from Separator unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is 4 pieces of **Automatic Transfer Robot** supply and installation work which will be used in Erzincan Combined Chicken Plant slaughtering hall which will provide transfer from feet cutting line to Giblet removing line, from Giblet removing line to dry cooling line, from dry cooling line to sorting line, from sorting line to cut-up line

II- TECHNICAL PROPERTIES:

Primarily transfer robots are consist of **Pulleys, Directing Shears (Switches), Transferring Equipments and** all other materials which are will be necessary during transfer stage.

According to this;

- Transfer robots will have the capacity to transfer **8.000 chicken**s per hour from one line to other line.
- Frame and body of transfer robots will be formed by AISI 304 grade material.
- Transfer robots will have speed adjusting property and assembly which will depend on capacity.
- Pulley and pulley threads of transfer robots will be designed to be proper with its function and dimensions of chain (8x25,4 mm dimensions) which is located in slaughtering line, Giblet removing line and cut-up line.
- Pulleys will be manufactured from stainless steel material
- Pulley rotation kit angles and pulley diameters will be selected according to work to be done.
- There will be central lubrication system for pulleys.
- There will be emergency stop buttons in several places of transfer line which will stop motors.
- Ratio of chicken which falls during transfer will not exceed 0,1 %
- Transfer robots will operate compliant between the lines where it receives the product and delivers the product. Different suspension solutions of different manufacturers will be considered by robot manufacturer and production will be made according to this.
- **Transfer from slaughtering line to giblets removal,** there will be system, assembly and equipment which will cut chicken's feet over Above Art. Tibio.Metatarsalis without allowing them to fall down and while they are moving over slaughtering line by means of suspension and direct and place the cut feet to the suspensions which move over Giblet removing line. Also it will have the capacity to cut **8000 pieces of** chicken's feet per hour by means of transfer line. Feet cutting system will be motor driven and adjustable.
- **From giblet removal line to dry cooling room :** there will be system, assembly and equipment which will direct and place the chicken which move with suspensions over Giblet removing line to suspensions which move over dry cooling line.

- **Transfer from cooling line to sorting line,** there will be system, assembly and equipment which will direct and place the chicken which moves with suspensions above dry cooling line to rotating suspensions which move over sorting line . Design will allow transfer from 6" to 8" during transition from dry cooling line to sorting line since 8" chain will be used in sorting.
- **Transfer from sorting line to cut up line ,** there will be system, assembly and equipment which will direct and place chicken which moves with suspensions above sorting line to suspensions which move above cut-up line.

III- GENERAL SUBJECTS:

- Transfer lines will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for transfer lines.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for transfer lines will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for transfer lines and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with transfer lines and recovery methods for them. All equipments and manufacturing related with manufacturing related with transfer lines which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Transfer lines will have CE certificate.
- Necessary precautions for worker safety should have been taken in transfer lines.
- During manufacturing stage, transfer lines will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of transfer lines.
- Electricity, water, steam connections which are necessary for transfer lines will be implemented by contractor company. These connections cover the connections from Transfer lines unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Internal Organ Removing Line Conveyor** which is overhead type and is located in the place Giblets are removed supply work which will be used in Erzincan Chicken Combined Plant slaughtering hall.

II- TECHNICAL PROPERTIES:

Primarily, line conveyor consists of **Line Chain, Rails, Wheels,** and **Fork Body, Suspension,** and **Suspension Flat Steel** which provides connection between fork body and suspension **ÇILBIR (HALTER) CHAIN** which prevents overlapping of suspensions, **Motor Gearbox** which provides movement of conveyor, **Pulleys and Suspensions** where chicken are hung, which are or will be needed during manufacturing stage. Form and position of line have been displayed in Layout Plan.

A- LINE CHAIN

- It will be in DIN EN 25,4 and short link calibrated.
- It will have 8x25,4 dimensions
- Chain will be electro galvanize coated.
- It will be installed such that distance between to fork link point is 6 inches
- At least three sets of tensioning system will be placed in several places of conveyor system for providing operation of chain efficiently.
- There will be chain lubrication unit over line

B- RAILS

- Rails will be sigma profile and their material will be Inox (AISI304).
- Rails should be manufactured after being designed to allow move of Trolley easily.
- Material wall thickness should be at least 5 mm

C- WHEELS

- Wheels will be manufactured from **Delrin** material and will have high mechanical strength.
- Wheels will be durable against moist, water, and several chemical materials.
- They will have high pulling and bending strength, but it will have low friction property and will be durable against impacts.
- Wheels will have type and dimensions which are suitable with rails to be manufactured.
- Wheel rotation will be provided by drawn ball and system will have outer cover.
- Wheel shaft will be manufactured from stainless material

D- FORK BODY

- It will be manufactured from aluminum alloyed cast material.
- It will be bearing for the wheels which are centered with stainless shaft over it.

- It will be manufactured such that suspension flat steel will be hung under it.
- It will be manufactured such that it will be driven y connecting conveyor chain inside body.

E- SUSPENSİONS

- Suspensions will be manufactured according to cut-up line.
- It will be designed such that one suspension will be in each 15 cm
- It will be designed such that chicken will be hung from both feet.
- Suspensions will be manufactured from AISI 304 stainless bar profile whose inner part is full or they will be manufactured as being compliant with food and will dimension and shape which is proper for processing.
- Suspension will be connected to suspension flat steel by stainless chain or suspension flat will be integrated

F- SUSPENSİON FLAT STEEL

- It is the part which connects fork body and chicken suspension by means of chain.
- It will be manufactured from AISI 304 stainless steel, and its dimensions will be 5x15x175 mm
- There will not be sharp corners.
- Its length will be approximately 30 cm.

G-HALTER CHAIN

- Halter chain will be manufactured from inox material.
- Halter chain will be installed in every 5 links through line.
- Chain will be DIN 5685-1 norm
- Its dimensions will be 5x35x9

H-MOTOR GEARBOX

- Motor power and number will be selected according to load to be carried and distance.
- Its revolution will be between 12-16 rpm.
- Power will be 380V-50 Hz
- Motor will also be adaptable to inverter system.
- Its efficiency will be at least %95.
- There will be **Emergency Stop** systems in several locations of system for providing the safety of conveyor system.

I- PULLEYS

- Pulleys will be manufactured from aluminum alloy cast material.
- Angles for rotation kits of pulleys and pulley diameters will be selected according to line function.

Pulley supply and installation will be implemented with amount which was defined in design and project which was implemented for pulleys.

- Pulley connections with conveyor line will be demountable, and it will be done completely with bolt system.
- Pulleys will be installed with shaft which is connected to corner return at center.
- Shafts will be mounted to pulley center via roller bearing and they will be manufactured from steel material which is suitable with their function.
- Pulley surface which contacts with chain will be manufactured from Delrin material, it will have channels and slices which will allow engaging with change easily.
- Pulley slices will be manufactured from injection pressed plastic material.
- Slices will be connected over pulley by means of system which includes bolt.
- Pulley will have central lubrication system

III- GENERAL SUBJECTS:

- Line conveyors will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for line conveyors.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Dimensions of line conveyor will be obtained from layout plan
- Project implementation, drawings and calculations for line conveyors will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for line conveyors and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line conveyors and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with line conveyors which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Line conveyors will have CE certificate.
- Necessary precautions for worker safety should have been taken in line conveyors.
- During manufacturing stage, line conveyors will be controlled by institution's officials and company will be liable to provide all kind of support about this subject. After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of line conveyors.
- Electricity, water, steam etc connections which are necessary for line conveyors will be implemented by contractor company. These connections cover the connections from Line conveyors unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Cloaca Opening and Abdomen Splitting Robot** Supply and Installation work which will be used in Erzincan Chicken Combined plant slaughtering hall. **Cloaca Opening and Abdomen Splitting can be composed of two separate machines or also can be composed of single unit.**

II- TECHNICAL PROPERTIES

A-) CLOACA OPENING

- Robot will have the capacity to make **8000 pieces** Cloaca Opening operation per hour.
- Robot's installation will be made above Giblet removing line.
- It will have automatic assembly which will provide proper cloaca opening process by pressing for the chickens which are moved above conveyor in suspension position.
- Robot will be automatically enabled when conveyor line is enabled.
- There will be a manual system which will stop robot in emergency cases.
- Frame and body of Cloaca opening and abdomen splitting robot will be completely manufactured from AISI 304 stainless steel material.
- Cloaca opening apparatus will be adjustable according to weight and size of chicken.
- Cloaca opening robot equipments will be compliant with equipments which present in line (Giblet removing) where they will be installed above them.
- Robot will perform cloaca opening process properly, without irritating the chicken body and disrupting integrity.
- Cloaca opening apparatus will be easy maintainable and demountable.
- Blade depths should have adjustable property.

B-) ABDOMEN SPLITTING

- Robot will have the capacity to open **8000 pieces** Abdomen splitting operation per hour.
- Robot's installation will be made above Giblet removing line.
- It will have automatic assembly which will provide proper abdomen splitting process by pressing for the chickens which are moved above conveyor in suspension position.
- Robot will be automatically enabled when conveyor line is enabled.
- There will be a manual system which will stop robot in emergency cases.
- Frame and body of Abdomen splitting and abdomen splitting robot will be completely manufactured from AISI 304 stainless steel material.
- Abdomen splitting apparatus will be adjustable according to weight and size of chicken.
- Abdomen splitting robot equipments will be compliant with equipments which present in line (Giblet removing) where they will be installed above them.
- Robot will perform abdomen splitting process properly, without irritating the chicken body and disrupting integrity.
- Abdomen splitting apparatus will be easy maintainable and demountable.

III- GENERAL SUBJECTS:

- Cloaca Opening and Abdomen Splitting Robot will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Cloaca Opening and Abdomen Splitting Robot.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Cloaca Opening and Abdomen Splitting Robot will be implemented by Contractor and will be approved by Administration. Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

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- A user manual will be prepared for Cloaca Opening and Abdomen Splitting Robot and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Cloaca Opening and Abdomen Splitting Robot and recovery methods for them.
- All equipments and manufacturing related with installation and startup etc related with Cloaca Opening and Abdomen Splitting Robot which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Cloaca Opening and Abdomen Splitting Robot will have CE certificate.
- Necessary precautions for worker safety should have been taken in Cloaca Opening and Abdomen Splitting Robot.
- During manufacturing stage, Cloaca Opening and Abdomen Splitting Robot will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Cloaca Opening and Abdomen Splitting Robot.
- Electricity, water, steam connections which are necessary for Cloaca Opening and Abdomen Splitting Robot will be implemented by contractor company. These connections cover the connections from Cloaca Opening and Abdomen Splitting Robot unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Giblet Removing Robot** Supply and Installation work which will be used in Erzincan Chicken Combined plant slaughtering hall

Giblets: It is composed of Intestines, gizzard, liver, lung, heart, gall bladder, spleen, pancreas, crop.

II- TECHNICAL PROPERTIES

- Robot will have the capacity to make **8000 pieces** Giblet removing operation per hour.
- Robot's installation will be made above Giblet removing line.
- It will have automatic assembly which will provide proper Giblet removing process by pressing for the chickens which are moved above conveyor in suspension position.
- Robot will be automatically enabled when conveyor line is enabled.
- There will be a manual system which will stop robot in emergency cases.
- Frame and body of Giblet removing and abdomen splitting robot will be completely manufactured from AISI 304 stainless steel material.
- Giblet removing apparatus will be adjustable according to weight and size of chicken.
- Giblet removing robot equipments will be compliant with equipments which present in line (Giblet removing) where they will be installed above them.
- Robot will perform Giblet removing process properly, without irritating the chicken body and disrupting integrity.
- Robot will have the property to automatically transfer the removed giblets to giblet transfer line.
- Giblet removing apparatus will be easy maintainable and demountable.
- Integrity of giblets will not be disrupted during removing operation.
- Removed giblets will completely be separated from body and transferred to system which moves parallel with body.

III- GENERAL SUBJECTS:

- Giblet Removing Robot will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Giblet Removing Robot
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for giblet removing robot machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Giblet Removing Robot and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Giblet Removing Robot and recovery methods for them.
- All equipments and manufacturing related with installation and startup etc related with Giblet Removing Robot which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules. Giblet Removing Robot will have CE certificate.
- Necessary precautions for worker safety should have been taken in Giblet Removing Robot

- - Giblet Removing Robot will be suitable with European Union food safety
- During manufacturing stage, Giblet Removing Robot will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of giblet removing robot machine.
- Electricity, water, steam connections which are necessary for Giblet Removing Robot will be implemented by contractor company. These connections cover the connections from Giblet Removing Robot unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Crop Removal Robot** Supply and Installation work which will be used in Erzincan Chicken Combined plant slaughtering hall.

It will remove crops and trachea from bodies whose internals were removed. Each robot arm will be cleaned after crop and trachea were removed and pollution which may occur at return.

II- TECHNICAL PROPERTIES

- Robot will have the capacity to make **8000 pieces** crop removing operations per hour.
- Robot's installation will be made above Giblet removing line.
- It will have automatic assembly which will provide proper crop removing process by pressing for the chickens which are moved above conveyor in suspension position.
- Robot will be automatically enabled when conveyor line is enabled.
- There will be a manual system which will stop robot in emergency cases.
- Frame and body of Crop removing robot will be completely manufactured from AISI 304 stainless steel material.
- Crop removing apparatus will be adjustable according to weight and size of chicken.
- Crop removing robot equipments will be compliant with equipments which present in line (Giblet removing) where they will be installed above them.
- Robot arms will enter into internal parts of chicken and perform crop removing.
- Robot will perform crop removing process properly, without irritating the chicken body and disrupting integrity.
- There will be vacuum pump together with robot.
- Vacuum pump will be spring type
- Robot will automatically leave the removed crops to crop transfer pump reservoir.
- Crop removing apparatus will be easy maintainable and demountable.

III- GENERAL SUBJECTS:

- Crop Removing Robot will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Crop Removing Robot
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for crop removing robot will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Crop Removing Robot and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Crop Removing Robot and recovery methods for them.
- All equipments and manufacturing related with installation and startup etc related with Crop Removing Robot which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Crop Removing Robot will have CE certificate.
- Necessary precautions for worker safety should have been taken in Crop Removing Robot -
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- During manufacturing stage, Crop Removing Robot will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of crop removing robot machine.
- Electricity, water, steam connections which are necessary for Crop Removing Robot will be implemented by contractor company. These connections cover the connections from Crop Removing Robot unit to closest power supply line.

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M.Senih YENEL **Mec. Study Proj. Chief**	**Bagdagul GUNGOR** **Vice Manager**	**Seydahmet ÖZKAN** **Vice Manager**
Ramazan PALTI **Vice Manager**	**Mehmet SAĞLAM** **YK Branch Manager**	**Muharrem Uçar** **Warehouse Manager**
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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Vacuum Robot** Supply and Installation work which will be used in Erzincan Chicken Combined plant slaughtering hall.

II- TECHNICAL PROPERTIES

- Robot will have the capacity to make **8000 pieces** Vacuum operations per hour.
- Robot will vacuum the chicken whose giblets are removed, giblets which may remain inside, bloody exudates and similar remnants and entire kidney.
- Robot's installation will be made above Giblet removing line.
- It will have automatic assembly which will provide proper crop vacuum process by pressing for the chickens which are moved above conveyor in suspension position.
- Robot will be automatically enabled when conveyor line is enabled.
- There will be a manual system which will stop robot in emergency cases.
- Frame and body of Vacuum robot will be completely manufactured from AISI 304 stainless steel material.
- Robot's Vacuum apparatus will be adjustable according to weight and size of chicken.
- Vacuum robot equipments will be compliant with equipments which present in line (Giblet removing) where they will be installed above them.
- Robot arms will enter into internal parts of chicken and perform vacuum.
- Robot will perform vacuum process properly, without irritating the chicken body and disrupting integrity.
- There will be vacuum pump together with robot.
- Vacuum pump will be oil type
- Robot will automatically leave the removed residues to waste channel.
- Vacuum apparatus will be easy maintainable and demountable.

III- GENERAL SUBJECTS:

- Vacuum Robot will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for vacuum robot
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for vacuum robot will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Vacuum Robot and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Vacuum Robot and recovery methods for them.
- All equipments and manufacturing related with installation and startup etc related with Vacuum Robot which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Vacuum Robot will have CE certificate.
- Necessary precautions for worker safety should have been taken in Vacuum Robot

- During manufacturing stage, Vacuum Robot will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of vacuum robot machine.
- Electricity, water, steam connections which are necessary for Vacuum Robot will be implemented by contractor company. These connections cover the connections from Vacuum Robot unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Neck Robot** Supply and Installation work which will be used in Erzincan Chicken Combined plant slaughtering hall. Neck breaking and Removing and Neck Skin Cutting robot **can be composed of two separate machines or also can be composed of single unit which performs both operations.**

II- TECHNICAL PROPERTIES

A-) NECK BREAKING AND REMOVING

- It is entire meat and skin tissue where cervical (neck) vertebra are located. It will make neck breaking and remove from the last 2 joint of neck
- Robot will have the capacity to make **8000 pieces** Neck breaking/cutting and removing operations per hour.
- Robot's installation will be made above Giblet removing line.
-
- Robot will be automatically enabled when conveyor line is enabled.
- There will be a manual system which will stop robot in emergency cases.
- Frame and body of robot will be completely manufactured from AISI 304 stainless steel material.
- Neck breaking and removing apparatus will be adjustable according to weight and size of chicken.
- Neck breaking and removing robot equipments will be compliant with equipments which present in line (Giblet removing) where they will be installed above them.
- Robot will perform Neck breaking and removing operations properly, without irritating the chicken body and disrupting integrity.
- Neck breaking/cuttinh and removing operations apparatus will be easy maintainable and demountable..
- If robot removes neck by removing there will be system which remove skin or neck skin removal robot following this.

III- OTHER SUBJECTS:

- Neck Breaking and Cutting Robot will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Neck Breaking and Cutting Robot
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor. Project implementation, drawings and calculations for Cloaca Opening and Abdomen Splitting Robot will be implemented by Contractor and will be approved by Administration. Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Neck Breaking and Cutting Robot and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Neck Breaking and Cutting Robot and recovery methods for them.
- All equipments and manufacturing related with installation and startup etc related with Neck Breaking and Cutting Robot which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Neck Breaking and Cutting Robot will have CE certificate.

- Necessary precautions for worker safety should have been taken in Cloaca Opening and Abdomen Neck Breaking and Cutting Robot Splitting Robot.
- During manufacturing stage, Cloaca Opening and Abdomen Splitting Robot will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Robot.
- Electricity, water, steam connections which are necessary for Robot will be implemented by contractor company. These connections cover the connections from Cloaca Opening and Abdomen Splitting Robot unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Internal and External Washing Robot** supply and installation work which will be used in Erzincan Combined Chicken Plant Slaughtering hall

II- TECHNICAL PROPERTIES

- Washing machine will have the capacity to perform internal and external washing of **8000 pieces of chicken** per hour.
- Machine materials will be formed by stainless material
- Machine will have high pressured spray nozzles and spraying units for internal washing.
- Machine will have high pressured spray nozzles and spraying units for external washing.
- Machine will have speed adjusting unit which will adjust the spraying speed for internal and external washing
- Machine will have the property of being operated by 9 bars pressures which will be obtained from mains pump which will be founded separately.
- Arms will enter inside chicken and will make internal washing while robot makes internal washing.
- Washing will be performed such that body integrity will not be disrupted during washing.

III- GENERAL SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- It can make internal and external washing together, and also it can be supplied with the design which allows making internal and external washing separately.
- Project implementation, drawings and calculations for Machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in Machine

- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Machine
- Electricity, water, steam etc. connections which are necessary for Machine will be implemented by contractor company. These connections cover the connections from Machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is giblet conveyor supply and installation work which will be used in giblet removing department of Erzincan Chicken Combined plant

. They will perform gizzard, liver etc products separation which were taken in giblet removing department and transfer of those products to processing and air chiller(dry cooling) departments. Form and position of conveyors were displayed in layout plan.

Cooling band conveyor will have 3 parts. It will have property to transport the liver, heart, neck and gizzards in three departments without mixing with each other.

II- TECHNICAL PROPERTIES

Conveyors will be suitable with 8000 pieces/hour slaughtering capacity In general cooling conveyor consists of Band, Band beddings, drums, roller bearings and motor gearbox having inverter system which provides conveyor movement in body where it is fixed.

A- BODY;

- Conveyor joining points will be minimum 5 mm and body will be manufactured from at least 2 mm AISI 304 CMI type and joining places will be in T form. .
- Stands will be manufactured from 40x40x2 AISI 304 profile, they will be bolted with rubber wedged stainless bolts and their height will be adjustable.
- Two pieces of emergency stops will be installed at start and end point of body, electrical motors will be water resistant, IE2(EFF 1) type, will have IP 55 protection class and will be operated with 380V 50 Hz
- Conveyor will be minimum 80 cm, number of conveyors were specified in project, length, height and profile steel sheet thickness and band speeds will be calculated by contractor based upon 12000 slaughtering per hour, those calculations will be submitted to administration and they will be finalized after last measurements
- For bedding of tail drums of conveyor; band tensioning system and tensioning drum will be manufactured from polyamide material, and they will be adhered type having knurls for preventing band sliding over drum and for providing tensioning.

B- ROLLERS and LOWER ROLLER HOLDERS

- Band's sagging at conveyor's lower parts will be prevented, flexure will not occur during rotation movement in rollers which are manufactured and used for preventing this, jamming will not occur in roller bedding.
- There will not be inclination at roller shafts.
- Material wall thickness will be minimum 2mm at it should be manufactured from AISI 304 material having diameter of 50 mm
- Rotation rollers will be used in every 2 meters.
- Chromium roller bearings will be used rollers, oil leak proof seals will be used in fitting parts of roller and shaft and grease nipple will be installed for greasing.

C-BANDS

- Band bearings will be manufactured from AISI 304 2 mm inverted **U material** and it will be welded.
- Bands will be directed by drums which were manufactured from polyamide material, drum roller bearings will be manufactured from chromium, roller bearings will have covers where greasing is not requested and they will not have cover and will have oil seal where lubrication is requested.
- Band will be manufactured from polyurethane material and it will be documented that it does not have any inconvenience for using in food production. Its thickness will not be less than 2 mm.
- Wheel shaft will be manufactured from stainless material
- Pillars which were manufactured from polyamide material and which will be placed with band and will be fixed over band will be placed for separate transportation of offal such as liver, gizzard, heart etc and trays which were manufactured from AISI 304 CrNi steel sheet having different lengths will be installed for each material separately for transfer of products from one band to other.

D- SCRAPERS

- There will be scraping tool in all bands

III- OTHER SUBJECTS:

- Conveyor will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for conveyor
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Conveyor's dimensions(length, width etc) will be obtained from machine layout plan.
- Project implementation, drawings and calculations for conveyor will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with conveyor and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with conveyor which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Conveyor will have CE certificate.
- Necessary precautions for worker safety should have been taken in conveyor
- Conveyor will be suitable with European Union food safety
- During manufacturing stage, conveyor will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of conveyor

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- Electricity, water, steam etc connections which are necessary for conveyor will be implemented by contractor company. These connections cover the connections from conveyor unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **overhead type Giblet Inspection and Transportation Conveyor** supply and installation work which will be used, at the giblet removing department in Erzincan Chicken Combined Plant Slaughtering hall

II- TECHNICAL PROPERTIES

- Conveyor will take giblets which were removed by robot ant transport them and will move parallel with conveyor which carries the chicken bodies.
- Conveyor will be manufactured such that it will go from veterinary location to other stations.
- Dimensions of line conveyor will be included in layout plan.
- Line hooks will have the capability to carry the removed giblets.
- Transporter hooks will not give harm to giblet integrity.
- Hooks will be selected from material which is suitable with food.
- Conveyor will be motor driven.
- Motor power will be selected according to load to be carried.
- Transporting conveyor will automatically be enabled when giblet removing line moves
- There will **Emergency Stop** system in several places of system for ensuring conveyor safety.

III- GENERAL SUBJECTS:

- Line conveyor will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for giblet inspection and transportation conveyor
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for line conveyor machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Line conveyor and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Line conveyor and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Line conveyor which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Line conveyor will have CE certificate.
- Necessary precautions for worker safety should have been taken in Line conveyor

- During manufacturing stage, Line conveyor will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of line conveyor machine.
- Electricity, water, steam connections which are necessary for Line conveyor will be implemented by contractor company. These connections cover the connections from Line conveyor unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Neck Washing and Transfer Screw Conveyor** supply work which will be used in Erzincan Chicken Combined Plant slaughtering hall

Screw conveyor will also make washing operation while it is performing transfer function.

II- TECHNICAL PROPERTIES:

Primarily washing and transferring scew conveyor having 8000 pieces /hour consists of Electrical Motor, Screw conveyor, Roller bearings where screw conveyors are fixed, protective covers, main body and all other materials which are or will be required during manufacturing

A- BODY

- It will be manufactured from AISI 304 or AISI 304 L CrNi material and steel sheet thickness will not be less than 2mm.
- Roller bearings where screw conveyor will be fixed will be manufactured form chromium material and will have sealing covers.
- Sagging over Screw conveyor will be at minimum level.
- Stands which will be mounted over body stands will have rubber wedges, stainless bolt and will be adjustable.
- Body protection cover and protection grid will be manufactured from AISI 304 or AISI 304 L material.
- Sharp corners joining will be avoided at body joining places as possible, rounded and sharp corners will be taken inside part by means of folding with press and worker health and worker safety will not be endangered.

B- ELECTRICAL MOTOR

- Motor will have IP 54 protection class, in IE2 (IFF) class it will be triphase 50 Hz and there will be two pieces of emergency stops and starting and end point of body, there will be motor protection cover at top of motor and its ventilation will be provided by holes.
- Motor will be coupled with gearbox motor for the difference between motor input revolution and output revolution. For providing suitable selection at gearbox selection; there will be agreement with administration.

C- SCREW CONVEYOR

- Distance between Screw conveyor palettes will be manufactured with suitable step spaces for preventing excess accumulations. Screw conveyor will be positioned at sufficient height for preventing jamming at lower dead centers where screw conveyor is fitted to body, for preventing screw conveyor give harm to materials, entering into spaces.
- Screw conveyor stands will be manufactured from 40x40x2 mm AISI 304 or AISI 304 L material.
- Screw conveyor discharge line will have proper width, peripheral and inner side, will be fixed with 360^0 welding, and welding defects will not remain.
- Feeding for water reservoir belonging to washing operation will be implemented with float valve system in proper place of screw conveyor
- Reservoir will have the connections to be fed by city water.
- There will be discharge valve at bottom level of reservoir.

III- GENERAL SUBJECTS:

- Screw conveyor will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for screw conveyor.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for screw conveyor will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for slaughtering screw conveyor and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with screw conveyor and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with screw conveyor which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Screw conveyor will have CE certificate.
- Necessary precautions for worker safety should have been taken in Screw conveyor
- During manufacturing stage, Screw conveyor will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of screw conveyor
- Electricity, water, etc connections which are necessary for screw conveyor will be implemented by contractor company. These connections cover the connections from machine to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Gizzard Transfer Screw conveyor** supply work which will be used in Erzincan Chicken Combined Plant slaughtering hall

II- TECHNICAL PROPERTIES:

Primarily gizzard transferring screw conveyor having 8000 pieces/hour capacity consists of Electrical Motor, Screw conveyor, Roller bearings where screw conveyors are fixed, protective covers, main body and all other materials which are or will be required during manufacturing

A- BODY

- It will be manufactured from AISI 304 or AISI 304 L CrNi material and steel sheet thickness will not be less than 2mm.
- Roller bearings where screw conveyor will be fixed will be manufactured form chromium material and will have sealing covers.
- Flexure over screw conveyor will be at minimum level.
- Stands which will be mounted over body stands will have rubber wedges, stainless bolt and will be adjustable.
- Body protection cover and protection grid will be manufactured from AISI 304 or AISI 304 L material.
- Sharp corners joining will be avoided at body joining places as possible, rounded and sharp corners will be taken inside part by means of folding with press and worker health and worker safety will not be endangered.

B- ELECTRICAL MOTOR

- Moto will have IP 54 protection class, in IE2 (IFF) class it will be triphase 50 Hz and there will be two pieces of emergency stops and starting and end point of body, there will be motor protection cover at top of motor and its ventilation will be provided by holes.
- Motor will be coupled with gearbox motor for the difference between motor input revolution and output revolution. For providing suitable selection at gearbox selection; there will be agreement with administration.

C- SCREW CONVEYOR

- Distance between Screw conveyor palettes will be manufactured with suitable step spaces for preventing excess accumulations. Screw conveyor will be positioned at sufficient height for preventing jamming at lower dead centers where screw conveyor is fitted to body, for preventing screw conveyor give harm to materials, entering into spaces.
- Screw conveyor stands will be manufactured from 40x40x2 mm AISI 304 or AISI 304 L material.
- Screw conveyor discharge line will have proper width, peripheral and inner side, will be fixed with 360^0 welding, and welding defects will not remain.
- Feeding for water reservoir belonging to washing operation will be implemented with float valve system in proper place of screw conveyor
- Reservoir will have the connections to be fed by city water.
- There will be discharge valve at bottom level of reservoir.

III- GENERAL SUBJECTS:

- Screw conveyor will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for screw conveyor.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.

- Project implementation, drawings and calculations for screw conveyor will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for slaughtering screw conveyor and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with screw conveyor and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with screw conveyor which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Screw conveyor will have CE certificate.
- Necessary precautions for worker safety should have been taken in Screw conveyor
- During manufacturing stage, Screw conveyor will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of screw conveyor
- Electricity, water, etc connections which are necessary for screw conveyor will be implemented by contractor company. These connections cover the connections from machine to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **gizzard machine** supply work which will have the capacity to process **8.000 pieces of gizzard** per hour for using in Erzincan Combined Chicken Plant slaughtering hall.

II- TECHNICAL PROPERTIES

- Primarily gizzard machine consists of screw conveyors which are manufactured from AISI 304 stainless steel (there will be rubber wedges which will be used for separating intestines), threaded impellers, scriber blade, polyamide gearbox and discharge gearbox and motor which is used for taking fats and intestine over gizzard by using pocket knife, screw conveyors, emergency stop button and all other materials which are/will be necessary during manufacturing stage.

A- FAT REMOVER BENCH

- It will separate the intestine residues in gizzard, and later it will clean the gizzard by cleaning. It will give internal membrane and solid waste to channel. Bench will capacity to process **8.000 pieces of slaughtering** per hour. Roller bearings which will be used in shaft fixing parts will be CrNi type and will have oil seals. This will be places such that workmanship which will be required for mounting and dismounting will be minimum and flexure will never occur at cylinders.

- Threaded gearbox which are located in end point of screw conveyors should be stainless steel which were heat treated. Gizzard scriber blade should be easily demountable and gears which provide reverse movement at outlet of channel which presses gizzard should be polyamide and processed gizzards should be poured to basket/conveyor/screw conveyor and transferred to last control desk by means of reverse movement of these gears. There will be water sprinkles at suitable height over contact surfaces for continuous cleaning of movable accessories.
- Motor drive mechanisms should be manufactured from proper stainless materials.

B- BENCH BASE AND ELECTRICAL MOTOR

- All stainless surfaces which will be used in bench production will be manufactured from AISI CrNi material.

- Electrical motor will be minimum IE2 (EFF 1) type which prioritizes energy efficiency, it will be 3 Phase (380 VAC , 50 Hz), completely closed and air cooling.
- There will be inverter system which provides revolution/speed adjustment based upon desired load/level in and/or over electrical motor.
- Emergency stop will be placed over bench in a places which can easily be seen and reached, it will be selected to be used properly in wet bases and worker health and safety will not be endangered.
- Circuit breakers which will provide system become out of service when its covers are opened, protective covers should have sliding and there should be wire grids below it, operation should be seen if it is necessary.

III- OTHER SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.

- Project implementation, drawings and calculations for Machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in Machine
- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Machine
- Electricity, water, steam etc. connections which are necessary for Machine will be implemented by contractor company. These connections cover the connections from Machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Gizzard Washing Machine** supply and installation work which will be used in Erzincan Combined Chicken plant Slaughtering Hall

II- TECHNICAL PROPERTIES

- It will have 8000 pieces/hour capacity

- Gizzards which were cleaned in gizzard machine are brought to gizzard washing machine and transferred to control desk by means of gizzard transfer screw conveyor after they are washed.
- Frame and body of Gizzard Washing machine will be manufactured from stainless steel and all parts will be compliant with food regulations which are in effect and related with food production.
- Gizzards are washed better by moving the screw conveyor and they are delivered to transfer screw conveyor at outlet
- Stands will be manufactured from AISI 304 Stainless grade material and it will have rubber wedged stainless bolts.
- There will be two inspection covers over body. These covers will be located at lateral surfaces of machine and will have size and position which will allow intervening to all part inside machine.
- Protection class will be IP 55 or higher.

III- OTHER SUBJECTS:

- Gizzard Washing Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Gizzard Washing Machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Gizzard Washing Machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Gizzard Washing Machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including
the equipments which are necessary to be used and information about probable failures related with Gizzard Washing Machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Gizzard Washing Machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Gizzard Washing Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in Gizzard Washing Machine

- During manufacturing stage, Gizzard Washing Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Gizzard Washing Machine
- Electricity, water, steam connections which are necessary for Gizzard Washing Machine will be implemented by contractor company. These connections cover the connections from Gizzard Washing Machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **dry cooling** supply and installation work which will be used in dry cooling department of Erzincan Chicken Combined Plant

This technical specification includes the equipments which are included in air chiller and details of equipments are given separately at specification. Manufacturing details of air chiller will be submitted to administration since air chiller is also related with other projects.

II- TECHNICAL PROEPRTIES

a) Carrier Construction: Carrier construction project will be designed by company which won the tender accordingly with work and free of charge. Manufacturing will be performed after company's designed project is approved by administration. Carrier profiles and fittings will be constructed such they will be joined in field without welding. Connection with bolt will be used as connection material. Steel material for carrier profiles will be sent to sandblasting after being manufactured at company and hot dip galvanizing will be applied after it has been sandblasted with Sa21/2 quality. Main carrier columns will ne manufactured at least from NPI or IPN 200 and a carrier column will be used in every 2-2,5 m alongside of room Main carrier profiles which will press to columns will be used from one end to other end vertically with room. These profiles will be NPI 160 or IPN 160. Horizontal carriers will be manufactured from NPI 140 or IPN 140. Conveyor will have two layers. First floor layer of horizontal carriers will be at 3600-4200 mm which will depend on the chillers to be used. From center to center distance between carrier columns at first layer and second layer will be between 1300-1400 mm. Steel plate which will be designed to carry the evaporators at second layer will be designed according to stand position of chillers. One layer will be able to be added from lower layer level if necessary. Bolts which will be used in carrier construction will be hot dip galvanized type bolts, electro galvanized type bolts will not be used. Galvanize thickness will be minimum 1200 gr/m^2 in carrier construction profiles.

b) Chain: It will be used to transmit movement in conveyor. Chain will have dimensions of 25,4*8mm. There will be 2 (two) pieces of lubrication unit for lubricating chain.

c) T profile: It will be manufactured from AISI 304 material. Its wall thickness will be 6 mm. T rails will be the type where air chiller trolleys will move easily. T rails will be connected to each other in every 4 meters. They will be connected face to face bolting from 6 mm thick holes by means of part which is manufactured from AISI 304 material. Also this joining point will be the connection point with carrier system. Intermediate part will be filled with welding after T profiles are joined face to face. Welding will be TIG welding type.

d) Tensioning Mechanism-1: A tensioning system which has weight will be used for removing the space over the chain. Main frame and equipment which movers forward and backward inside tensioning system will completely be manufactured from AISI 304 material. part which will ensure skid will slide throughout body will be manufactured from poly amide wheels. There will be proximity sensors over tensioning system which will provide analog information and there will be ruptured sensor which will notify rupturing in case of chain rupturing. Tensioning mechanism will be weighted type and there will be hot dip galvanized weight over it. One tensioning mechanism will present for each drive system Rotation pulleys, and similar equipments for Tensioning Mechanism 1 will be

proper with pulley technical specifications. One piece will be used in every 150-170 meters.

e) Tensioning Mechanism -2: It will have same properties with tensioning mechanism-1 and only 1 piece will be located in a central point and it will provide tensioning. Weight will be approximately two folds of other weights and sliding area will be more.

f) Driving System: Driving system will be selected to provide 25 m +-3 meter/min speed at 50 Hz. Motor will have 2.2 kW power, 4 poles and be in IEC 3 Premium efficiency class. Gearbox to be selected will be model which is selected by manufacturer company with 3 safety factors. Rotation pulleys for driving system will be proper with rotation pulleys technical specifications. One piece of tensioning drive system will be used in every 150-170 meters.

g) Chain and Trolley: Carrier trolleys will be placed such that one chicken carrier will be placed in every 6 " lengths. Chain links will be DIN EN 1024 standard and will have 8x25,6 length. It will be placed such that one carrier will correspond to 6 chain links. Wheels which will form the trolley will be manufactured from two pieces of conical delrin material. Conical type AISI 304 stainless steel ball will be cast into external parts, then cover which forms the internal part and which was manufactured from delrin material will be placed and then connections will be made by AISI 304 stainless steel shaft, stainless steel nuts and bolts after this part has been placed to fork. Forks will be manufactured from Delrin material. Forks will be joined by stainless steel bolts and nuts from lower side. Chicken suspension which was manufactured from delrin material will be mounted to lower part of fork intersection by means of AISI 304 stainless steel bolt and nut connections.

h) Rotation Pulleys: It will be able to take 6 chickens around it, internal part will be manufactured from aluminum cast and outer part will be manufactured from polyamide material. Central part of cast material will be centered by roller bearing which was manufactured from stainless steel material.

III- GENERAL SUBJECTS:

- Air chiller will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Air chiller.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Air chiller will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Air chiller and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Air chiller and recovery methods for them.

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- All equipments and manufacturing related with manufacturing related with Air chiller which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Air chiller will have CE certificate.
- Necessary precautions for worker safety should have been taken in Air chiller
- During manufacturing stage, Air chiller will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Air chiller
- Electricity, water, steam connections which are necessary for Gizzard Washing Machine will be implemented by contractor company. These connections cover the connections from Gizzard Washing Machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT:

It is **Sorting Line Conveyor supply and installation work** which will be used in Erzincan Chicken Combined Plant

II- TECHNICAL PROPERTIES:

Sorting line conveyor will have the capacity to make **8000 pieces** of This line will be constructed as a whole and Primarily, line conveyor consists of **Line Chain, Rails, Wheels,** and **Fork Body, Suspension,** Motor gearbox which provides movement of conveyor suspension where chicken are hung and other materials which are or will be necessary,. Form and position of line have been displayed in Layout Plan.

A- LINE CHAIN

- It will be in DIN EN 1024 and short link calibrated.
- It will have 8x25,4 dimensions
- Chain will be electro galvanize coated.
- There will be automatically sensing pneumatically tensioning system over line which will provide efficient operation of chain in conveyor system. (This system will provide chain operation at desired tensioning by being enabled by means of sensors in tensioned and loosened cases so required tension will be provided)
- There will be chain lubrication unit over line

B- RAILS

- Rails will be sigma profile and their material will be Inox (AISI304).
- Rails should be manufactured after being designed to allow move of Trolley easily.
- Material wall thickness should be at least 5 mm

C- WHEELS

- Wheels will be manufactured from **Delrin** material and will have high mechanical strength.
- Wheels will be durable against moist, water, and several chemical materials.
- They will have high pulling and bending strength, but it will have low friction property and will be durable against impacts.
- Wheels will have type and dimensions which are suitable with rails to be manufactured.
- Wheel rotation will be provided by drawn ball and system will have outer cover.
- Wheel shaft will be manufactured from stainless material

D- FORK BODY

- It will be manufactured from aluminum alloyed cast material.
- It will be bearing for the wheels which are centered with stainless shaft over it.
- It will be manufactured such that suspension flat steel will be hung under it.
- It will be manufactured such that it will be driven by connecting conveyor chain inside body.

E- SUSPENSİONS

- It will be designed such that one suspension will be in each 15 cm
- Suspensions will be suspension type which is proper with cut up line
- It will be designed such that chicken will be hung from both feet.
- Suspensions will be manufactured from AISI 304 stainless bar profile whose inner part is full and having diameter of 8mm. they will be suitable with food.

F- SORTING

- Sorting will have 8000 pieces/hour capacity
- System will operate automatically
- Sorting line will be used for sorting and dropping the bodies over pan.
- Bodies will drop over pans under station. There will be assemble for exact dropping of bodies.
- There will be 15 sorting stations
- Stations will be able to be adjusted with desired weighs from computer.
- There will be computer for users. Computers will be delivered with software.
- There will be dot matrix printer. Desired documents will be printed out from user's computer
- Capacity for loadcell will e maximum 60 kg
- Weigh will have 150 gr-450 gr.
- Weighing accuracy will be +/-10 gr

System speed will be adjustable according to cut up line rotation speed.

- System speed will be able to be adjusted by PLC control
- Sorting line will make automated weighing calibration in itself.
- Number of chicken and total weight will be able to be seen from all stations
- Computer and control panel will be installed another separate room
- There will be separate pneumatically piston in each station for dropping chicken.
- Distances between stations will be 650 +/- 50 mm for small pans and 2000 mm +/- 100 mm for large pans.
- There will be electro pneumatically solenoid valve which drive pneumatic cylinders.
- System completely be manufactured from stainless material.
- Station can be added to system if necessary
- Reference weight which will calibrate system will have certificate.
- System will operate by digitally communicating with control station.

I

III- GENERAL SUBJECTS:

- Line conveyors will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for line conveyors.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for line conveyors will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for slaughtering line conveyors and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line conveyors and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with line conveyors which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Line conveyors will have CE certificate.
- Necessary precautions for worker safety should have been taken in line conveyors. During manufacturing stage, line conveyors will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.

After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of line conveyors.

- Electricity, water, steam etc connections which are necessary for line conveyors will be implemented by contractor company. These connections cover the connections from Line conveyors unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Sorting Pans** supply and installation work which will be used in Erzincan Combined Chicken plant Cut Up Hall

II- TECHNICAL PROPERTIES

- Its construction material will be completely AISI 304 material.
- Pans will have stand and will be adjustable-
- Pans' connection will be made by bolts
- There will be independent sections over pans belonging to products which are dropped by sorting line according to their size and dimensions.
- There will aproximately 15 degrees slope between the independent sections of pans
- Steel sheet thickness will be minimum 2 mm
- Pan frame will ve 40x60x3 and there will be straps in each 8000 mm
- Pan stand will be made from box profile having 40x40x500 mm and will have level adjustment system from bottom part
- Pan should have easy cleaning and assembly structure
- Pans will be demountable
- Small pan dimensions will be 600 mmx1000 mm *300-600m front and rear depths will be different
-Large pan dimensions will be 1500 mmx1000 mm *300-600m front and rear depths will be different
- There will 10 small pans and 5 large pans

III- OTHER SUBJECTS:

- Sorting pan will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Sorting pan.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Sorting pan will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Sorting pan and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Sorting pan and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Sorting pan which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Sorting pan will have CE certificate.
- Necessary precautions for worker safety should have been taken in Sorting pan

- During manufacturing stage, Sorting pan will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Sorting pan
- Electricity, water, steam connections which are necessary for Sorting pan will be implemented by contractor company. These connections cover the connections from Sorting pan unit to closest power supply line.

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I- It is **Quality Control Station** Supply and installation work which will be used in Erzincan Combined Chicken Plant Slaughtering Hall.

System will take the image of chicken and evaluate according to information (from, color, red and blue bruises, fractures, remained feathers and skin damages) and direct them to lines according to their quality

II- TECHNICAL PROPERTIES

- Station will operate with **8000 pieces/hour** capacity
- It will evaluate the chicken by taking its image from all directions.
- Necessary reference images will be located in computer memory
- All necessary software, electronics, hardware and software will be included
- Software language will be Turkish.
- Images related with product will be kept for at least month and statistical information will be kept for at least one year.
- It will be able to be controlled remotely by ethernet connection.
- System will digitally communicate and operate compliant with chigway control unit.

III- GENERAL SUBJECTS:

- Station will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for station
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for station will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for station and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with station which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Station will have CE certificate.
- Necessary precautions for worker safety should have been taken in station

- During manufacturing stage, station will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of station
-
- Electricity, internet etc. connections and auxiliary equipments such as computer, tv, printer, monitor and similar devices which are necessary for station will be implemented by contractor company. These connections cover the connections from station unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is Cut Up line supply and installation work which will be used in Cut Up Department of Erzincan Chicken Combined plant. Modules in cut up line can be separate for each operation as well as it can have the property to produce several products in same module.

II- TECHNICAL PROPERTIES

- Line speed will have the capacity to cut up **4.000** pieces of chicken per hour.
- Chain, suspension, wheel, motor, pulley, carrier construction etc all auxiliary equipments which will provide transfer between modules will be included in this line.
- Power of motors which will be used in this line will be selected according to work to be done.
- This line can act according to command which were obtained from chigway control unit and quality control unit as well as according to commands which were manually entered.
- There will be modules over line where 15 types of products can be obtained from them. Definitions for those products are as following.

TS 5890 Chicken Body Meat, Cut Up, Packaging, Carrying and Storage Rules

a) Chicken Body Without Wing: It is body part which had remained after wings had been cut from chicken body at shoulder joints.

b) 0.2.6 Back Quarter Body: It is the part which was formed after cutting back half body (article 0.2.4) through backbone and sacrum or the part which is formed after taking front quarterback half body where sacrum is partially located over hipped buttock.

c) 0.2.11.5 End Wing: It is the end part which is formed by cutting half wing's(article 0.2.11.2) front arm area(radius, ulna) from the joint which it joins with carpal region.

d) 0.2.11.4 Middle Wing (Wing Grill): It is the part where front arm bones (radius, ulna) are located after cutting half wing (article 0.2.11.2) from deep and end parts.

e) 0.2.11.3 Deep wing: It is the part where humerus is located which had remained after cutting half wing (article 0.2.11.2) from elbow joint

f) 0.2.7 Caged Complete Breast: It is obtained by cutting wings above front half body (Article 0.2.3) including breast cage, shoulder bone, back spine and last spine of neck and tissue which covers it.

g) 0.2.8 Complete breast(without cage, without wing): It is the boned part where complete breast meat is located which was formed after separating cage from caged complete breast(Article 0.2.7)

h) 0.2.9 Complete breast without bone: It is the part with or without skin where muscular part of caged complete breast (Article 0.27)have been separated breast bone properly.

ı) 0.2.10.1 Semi Breast with Cage: It is the part which is obtained by cutting caged complete breast (article 0.2.7) through sternum and back vertebra symmetrically.

i) 0.2.10.2 Half Complete Breast: It is the boned part which is obtained by cutting complete breast (article 0.2.8) among sternum symmetrically.

j) 0.2.12.1 Complete Buttock: It is the part which is obtained by cutting back quarter body (Article 0.2.6), the part where calf bones (tibia, fibula), and leg bone (femur) are located from hip joint.

k) 0.2.12.2Upper buttock(Rolls, Talex): It is the upper part of complete buttock (article 0.2.12.1) which is cut from knee joint of leg bone (femur)

l) 0.2.12.3 Buttock Chop: It is the part which is obtained by scraping the meat of upper buttock (article 0.2.12.2) with or without skin towards hip type and later that meat is beaten.

m) 0.2.12.4 Lower Buttock(Baguette) : It is the part which is obtained by cutting upper buttock (article 0.2.12.2) from complete buttock (article 0.2.12.1)

n) 0.2.12.5 Shank: It is the lower buttock's(article 0.2.12.4) part whose wing bone (tibia) end is cut. It is with our without skin.

- Apparatus which basis of operation will have the property of being easily demountable and maintainable.
- Crushing, tearing and similar adverse effects will not occur over products during cut up operations.
- Module or modules for requested products will be automatically enabled when the line is enabled.
- Line and equipments will be protected against moist, water, dust and steam, also it will have anti corrosive property.
- Line and equipments will be easily cleanable.
- There will be system which will manually stop the line in emergency cases.
- Frame and body of line will be manufactured from AISI 304 stainless material, and other materials will be manufactured from material which is suitable with food.
- Each module will have proper dropper apparatus which will not mix with other parts.
- Products which fall down under each module will be carried to relevant packaging department without touching with hand.
- 2 sets of spare parts for each module will be given.

III- OTHER SUBJECTS:

- Line will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for line
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for line will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for line and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with line which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.

- Line will have CE certificate.
- Necessary precautions for worker safety should have been taken in line
- During manufacturing stage, line will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of line
- Electricity, water, steam, data transfer line etc. connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Band Conveyor which belongs to Automated Cut-up Operation** supply and installation work which will be used in Cut-up hall of Erzincan Chicken Combined Plant.

II- TECHNICAL PROPERTIES:

Primarily conveyors consist of band, band bearings, drums, roller bearing, motor gearbox which provides conveyor movement in body where it is connected.

Conveyors will perform product transportation and transfer operation depending on operation which will be implemented in automated cut up place, and its position and forms were displayed in layout plan.

According to this;

A- BODY;

- If there is extension in conveyor length which is more than 6(six) meters, T form joining places which were manufactured from AISI 304 material and has dimensions of minimum 5x2 mm will exist in joining places.
- Stands will be manufactured from 40x40x2 AISI 304 profile, they will be bolted with rubber wedged stainless bolts and their height will be adjustable.
- Two pieces of emergency stops will be installed at start and end point of body, electrical motors will be water resistant, IE2(EFF 1) type, will have IP 55 protection class and will be operated with 380V 50 Hz
- Number of conveyors were specified in out project, and its height, length, profile steel sheet thickness and band speeds will be calculated based on cutting up 4000 pieces of chicken per hour.
- In conveyors, there will be system which will prevent band tensioning and band sliding.
- Tensioning drum will be manufactured from polyamide material; it will be adhered with knurled type for preventing band sliding and for providing tensioning.

B- ROLLERS and LOWER ROLLER HOLDERS

- Band's sagging at conveyor's lower parts will be prevented, flexure will not occur during rotation movement in rollers which are manufactured and used for preventing this, jamming will not occur in roller bedding.
- There will not be inclination at roller shafts.
- Material wall thickness will be minimum 2mm at it should be manufactured from AISI 304 material having diameter of 50 mm
- Rotation rollers will be used in every 2 meters.
- Chromium roller bearings will be used rollers, oil leak proof seals will be used in fitting parts of roller and shaft and grease nipple will be installed for greasing.

C- BANDS

- Band bearings will be manufactured from AISI 304 2 mm inverted **U material** and it will be welded.
- Bands will be directed by drums which were manufactured from polyamide material, drum roller bearings will be manufactured from chromium, roller bearings will have covers where greasing is not requested and they will not have cover and will have oil seal where lubrication is requested.
- Band will be manufactured from polyurethane material and it will be documented that it does not have any inconvenience for using in food production.
- Its thickness will not be less than 2 mm.
- Wheel shaft will be manufactured from stainless material
- There will be scraping tool in all bands

III- OTHER SUBJECTS

- Line will be suitable with subjects which are specified in technical specification.
- .
- Two years warranty will be granted for conveyors.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for conveyors will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- All equipments and manufacturing related with manufacturing related with conveyors which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Conveyors will have CE certificate.
- Necessary precautions for worker safety should have been taken in conveyors.
- During manufacturing stage, line conveyors will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of conveyors.

- Electricity, water, steam etc connections which are necessary for line conveyors will be implemented by contractor company. These connections cover the connections from conveyors unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Automated Fillet Production Line** supply and installation work which will be used in Erzincan Combined Chicken Plant Cut Up Hall

II- TECHNICAL PROPERTIES

A- LINE CHAIN

- Fillet line will have **1000 pieces of** fillet taking out capacity per hour.
- There will be **breast hooking, fillet skin removal, wishbone removal, dividing fillet into two parts, fillet scraper, taking fillet, internal tendon cutting and internal fillet taking out module equipments over** fillet taking out line.
- All materials and equipments which will be used in line and modules will be manufactured from AISI 304 grade material.
- Fillet line will be motor driven.
- All machines will automatically be enabled after system is enabled.
- Motor powers which will be used in fillet production process will be selected according to work load.
- Motors will have inverter system
- Energy consumption will be 380 50 Hz
- Apparatus which will be used in fillet production operations will be easily demountable and maintainable.
- Machine and equipments which will be used in modules will be adjustable according to dimensions of product.
- System will be PLC controlled.
- System's speed will be adjustable.
- System will be able to be stopped by emergency stop assembly in necessary cases
- 2 sets of spare parts for each module will be given.

III- GENERAL SUBJECTS:

- Fillet line will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for fillet line
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for fillet line will be implemented by
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for fillet line and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.

- All equipments and manufacturing related with manufacturing related with fillet line which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- .
- Fillet line machine and equipments will have CE certificate.
- Necessary precautions for worker safety should have been taken in fillet line will be suitable with European Union food safety
- Necessary precautions for worker safety should have been taken in fillet line
- During manufacturing stage, fillet line will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification and recovery methods of breaking of mechanism
- Electricity, water etc. connections which are necessary for fillet line will be implemented by contractor company. These connections cover the connections from fillet line unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is overhead type **Empty Box and Case Transportation Line Conveyor** supply and installation work which will be used in Ezrincan Chicken Combined Plant Cut Up department.

This line will aerially transport the empty carton boxes and PVC cases where the products which will be produced in cut up department will be put inside it. This line will be designed according to production machines which are specified in layout plan for cut up line and selected process. Primarily transportation line will compose of Line Chain, Rails, Wheels, Fork Body, Box Transportation Flat Steel (with hook), Pulleys, Motor Gearbox and other auxiliary equipments. Form and position of line was indicated in layout plan.

II- TECHNICAL PROPERTIES

A- LINE CHAIN

- It will short link calibrated according to DIN EN 1024
- It will have 8x25,4 mm dimensions
- Chain will electro galvanized coated.
- It will be mounted such that distance between two fork connection points will be 10 cm.
- There will be automatic sensor tensioning system over the line for efficient operation of chain in conveyor system. (For providing this system chain to have certain tension, sensors will be active in cases that chain is tensioned or loosened and will provide chain to operate in desired tension.)
- There will be chain lubrication unit in line.

B- RAILS

- Rails will be sigma profile and their material will be Inox (AISI304).
- Rails should be manufactured after being designed to allow move of Trolley easily.
- Material wall thickness should be at least 5 mm

C- WHEELS

- Wheels will be manufactured from **Delrin** material and will have high mechanical strength.
- Wheels will be durable against moist, water, and several chemical materials.
- They will have high pulling and bending strength, but it will have low friction property and will be durable against impacts.
- Wheels will have type and dimensions which are suitable with rails to be manufactured.
- Wheel rotation will be provided by drawn ball and system will have outer cover.
- Wheel shaft will be manufactured from stainless material

D- FORK BODY

- Forks will be manufactured from aluminum alloyed cast material.
- It will be bearing for the wheels which are centered with stainless shaft over it.

- It will be manufactured such that suspension flat steel will be hung under it.
- It will be manufactured such that it will be driven y connecting conveyor chain inside body.

F- SUSPENSİON FLAT STEEL

- It will be mounted to fork body and will have **L form.**
- Transportation flat steel will not have sharp and pointed edges which may give harm to boxes
- It will be manufactured from AISI 304 stainless steel.
- Material wall thickness will be 5 mm and width will be 15 mm
- It will be screw conveyor type and will not have sharp corners.
- Its length will be approximately 20 cm

H-MOTOR GEARBOX

- Its power will be minimum 2,2 kW
- Its revolution will be between 12-16 rpm.
- Its frequency will be 50 Hz
- Motor will also be adaptable to inverter system.
- Its efficiency will be at least %95.
- There will be **Emergency Stop** systems in several locations of system for providing the safety of conveyor system.
- There will be a system in conveyor system which will automatically stop the conveyor system in damage and failure cases.
- Motor will have speed adjustable system.

I- PULLEYS

- Pulleys will be manufactured from aluminum alloy cast material.
- Angles for rotation kits of pulleys and pulley diameters will be selected according to line function.
- Pulley supply and installation will be implemented with amount which was defined in design and project which was implemented for pulleys.
- Pulley connections with conveyor line will be demountable, and it will be done completely with bolt system.
- Pulleys will be installed with shaft which is connected to corner return at center.
- Shafts will be mounted to pulley center via roller bearing and they will be manufactured from steel material which is suitable with their function.
- Pulley surface which contacts with chain will be manufactured from Delrin material, it will have channels and slices which will allow engaging with change easily.
- Pulley slices will be manufactured from injection pressed plastic material.
- Slices will be connected over pulley by means of system which includes bolt.
- Pulley will have central lubrication system.

III- OTHER SUBJECTS:

- Transportation line will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for transportation line.

- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for transportation line will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for transportation line and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line conveyors and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with transportation line which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Transportation Line will have CE certificate.
- Necessary precautions for worker safety should have been taken in Transportation Line
- Transportation Line will be suitable with European Union food safety
- During manufacturing stage, transportation line will be controlled by institution's officials and company will be liable to provide all kind of support about this subject. After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of reasons and recovery methods of line conveyors.
- Electricity etc connections which are necessary for transportation line will be implemented by contractor company. These connections cover the connections from Line conveyors unit to closest power supply line.

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M.Senih YENEL **Mec. Study Proj. Chief**	**Bagdagul GUNGOR** **Vice Manager**	**Seydahmet ÖZKAN** **Vice Manager**
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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Bagging Machine** supply and installation work which will be used in Erzincan Chicken Combined Plant cut-up hall

II- TECHNICAL PROPERTIES

- Machine will have the capacity to automatically package approximately 15 pieces of chicken per minute.
- Servo motors which does not require maintenance will be used in system.
- Machine will have apparatus which will automatically open the nylon bag.
- Machine will be adjustable for being able to bag the chickens with all weigh basis and form
- Machine will have high bagging capacity
- Machine will have dust protection system
- Machine will operate with 6 bars of compressed air.
- Machine's slow rate at maximum speed is 300 l/min
- Machines power is approximately 10 kW including equipments
- Machine power supply is 3 phases, 400 V and 50 Hz
- Machine case will be manufactured from AISI 304 grade material
- Machine will be speed adjustable.

III- OTHER SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with semi automated chicken bagging machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.

- Necessary precautions for worker safety should have been taken in machine
- During manufacturing stage, Machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of machine
- Electricity, water, steam connections which are necessary for semi automated chicken bagging machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Clipping Machine** supply and installation work which will be used in Erzincan Chicken Combined Plant Slaughtering Hall

II- TECHNICAL PROOERTIES

- Machine will close the nylon bags by clipping as being single wired or double wired.
- Machine will operate with pneumatically system
- There will be clipping pressure safety system
- Compressed air pressure will be minimum5 Bars
- There will be servo motor system which will not require maintenance
- Machine body will be completely manufactured from AISI 304 material
- Materials out of stainless materials will be selected from materials which are suitable for food production usage.

III- OTHER SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with clipping machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Clipping machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in Clipping machine
- Clipping Machine will be suitable with European Union food safety
- During manufacturing stage, Machine will be controlled by institution’s officials and company will be liable to provide all kind of support about this subject.

- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of machine
- Electricity, water, steam connections which are necessary for clipping machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Automated Dish Packaging** supply and installation work which will be used in Erzincan Combined Chicken Plant slaughtering Hall

II- TECHNICAL PROPERTIES

- Packaging Machine will have the capacity to automatically stretch 40-50 dishes per minute.
- Machine will have high qualified packaging quality.
- Machine will have dust protection system
- Electrical connection will be 380 V
- Machine body will be manufactured from AISI 304 Grade material
- Machine will be speed adjustable
- It will have automated film adjusting property which will be based on product dimensions
- Machine will be driven by electrical motor.
- Motor power will be minimum 2,2 kW
- Machine will have automated or manual programming property
- Machine will have automated rolls replacing system and double motor roll support.
- Machine will have pre tensioning and folding property according to variable tray dimensions
- Machine will have automated feeder carrier.
- Machine will have speed adjusting property which will be programmable according to tray/product type
- There will be film end sensing system for each roll which will be used in machine.
- Self diagnosis by fault control panel
- PVC, polyethylene, SS and Polyolefin film packaging
- Machine will be anti corrosive and easily cleanable
- Machine will have IP 65 protection class level
- Machine will be proper with EC standards.

III- GENERAL SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with line and recovery methods for them.

- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in machine
- During manufacturing stage, machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification and recovery methods of packaging mechanism
- Electricity, etc. connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Automated Weighing and Labeling Machine** supply and Installation work which will be used in packaging department of Erzincan Chicken Combined plant

II- TECHNICAL PROOERTIES

- Conveyor will weigh the plastic dishes where chicken pieces which were transferred over conveyor are located.
- Automated Weighing and Labeling Machine will make labeling operation after weighing.
- Automated Weighing and Labeling machine will be complied with PLC control system.
- Labeling which was performed in machine will be suitable with Turkish Food Codex.
- Frame and body of Automated Weighing and Labeling Machine will be stainless steel and all parts will be compliant with food regulation which are in effect related with food production.
- Machine stands will be installed at least 20 cm over ground. (for cleaning under machine)
- Stand's height will be adjustable
- It will be able to make automated weighing and labeling up to 60 pieces per minute.
- Machine will be able to weigh and label up to 4 kg.
- Machine labeling head will be able to ship 10 cm towards left and right
- Label dimensions will be adjustable from standard label dimension 35*40 to 100*100.
- Machine will have colored touch screen control panel.
- Product label information will be able to be adjusted from control panel.
- It will include PS2/parallel/USB ports
- It will have Ethernet/RS232 inputs
- It will have program assignment buttons.
- It will be able to store weighing and submit daily, monthly reports
- Its protection class will be IP 55 or higher.

III- GENERAL SUBJECTS:

- Automated weighing and labeling machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for automated weighing and labeling machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for automated weighing and labeling machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Automated weighing and labeling machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Automated weighing and labeling machine and recovery methods for them.

- All equipments and manufacturing related with manufacturing related with Automated weighing and labeling machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Automated weighing and labeling machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in Automated weighing and labeling machine.
- Machine will be suitable with European Union food safety
- During manufacturing stage, Automated weighing and labeling machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of automated weighing and labeling machine.
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Electricity, water, steam connections which are necessary for Automated weighing and labeling machine will be implemented by contractor company. These connections cover the connections from Automated weighing and labeling machine unit to closest power supply line

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Bagged Chicken Weighing and Labeling Machine** supply work which will be used in slaughtering department of Erzincan Chicken Combined plant

II- TECHNICAL PROOERTIES

- Its body will be manufactured from AISI 304 stainless material and other parts will be manufactured from material which is suitable with food.
- Machine stands will be installed at least 20 cm over ground. (for cleaning under machine)
- Stand's heights will be adjustable
- It will have automated conveyor system.
- Conveyor will have 3 parts. 1. Part where weighing is performed,2. Part Order waiting conveyors for labeling 3. Part : conveyor where labeling is performed.
- Machine will be used for labeling and weighing bagged chicken
- It will be able to make automated weighing and labeling up to 60 pieces per minute
- Machine will be able to weigh and label up to 4 kg.
- Machine will be able to make labeling up to 20 cm of product height
- Machine labeling head will be able to ship 10 cm towards left and right.
- It will be suitable for labeling the product from top and side.
- Label dimensions will be adjustable from standard label dimension 35*40 to 100*100.
- Machine will have colored touch screen control panel.
- Product label information will be able to be adjusted from control panel.
- It will include PS2/parallel/USB ports
- It will have Ethernet/RS232 inputs
- It will have program assignment buttons.
- It will be able to store weighing and submit daily, monthly reports
- It will have program assignment keys
-

III- OTHER SUBJECTS:

- Machine will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for machine will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

- A user manual will be prepared for machine and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with machine and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with machine which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Machine will have CE certificate.
- Necessary precautions for worker safety should have been taken in machine.
- During manufacturing stage, machine will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification ofmachine.
- .
- Electricity, water, steam connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Box Labeling Machine** supply and Installation work which will be used in packaging department of Erzincan Chicken Combined plant

II- TECHNICAL PROOERTIES

- It will perform weighing and labeling operation of bagged or dished products after they are placed into boxes

-

- Labeling which was performed in machine will be suitable with Turkish Food Codex.
- Frame and body of **Dish Boxing and Box Labeling Machine** will be stainless steel and all parts will be compliant with food regulation which are in effect related with food production. 7
- Weighing limits will be between 5 kg-30 kg. Accuracy limits will be within legal limits.

-Weighing surface will be minimum 50 cm*70 cm

- Machine stands will be installed at least 20 cm over ground. (for cleaning under machine)
- Stand's height will be adjustable
- Machine labeling head will be able to ship 10 cm towards left and right
- Label dimensions will be adjustable from standard label dimension 35*40 to 100*100.
- Machine will have colored touch screen control panel.
- Product label information will be able to be adjusted from control panel.
- It will include PS2/parallel/USB ports
- It will have Ethernet/RS232 inputs
- It will have program assignment buttons.
- It will be able to store weighing and submit daily, monthly reports

-

III- OTHER SUBJECTS:

- **Box Labeling Machine** will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for box labeling machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for **Box Labeling Machine** will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for **Box Labeling Machine** and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with dish boxing and box labeling machine and recovery methods for them.

-

- It All equipments and manufacturing related with manufacturing related with **Dish Boxing and Box Labeling Machine** which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- **Dish Boxing and Box Labeling Machine** will have CE certificate.
- Necessary precautions for worker safety should have been taken in **Dish Boxing and Box Labeling Machine** will be suitable with European Union food safety
- During manufacturing stage, **Dish Boxing and Box Labeling Machine** will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of **Dish Boxing and Box Labeling Machine**

Electricity, water, steam connections which are necessary for **Dish Boxing and Box Labeling Machine** will be implemented by contractor company. These connections cover the connections from dish boxing and box labeling machine unit to closest power supply line

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OUR ADMINISTRATION SHALL NOT BE RESPONSIBLE FOR THE MISTAKES ARISING FROM ENGLISH TRANSLATION. TURKISH TEXT SHALL BE ESSENTIAL IN SUCH CASES.

I- SUBJECT

It is **Shelf system** supply and installation work which will be used in Erzincan Combined Chicken Plant frozen storage rooms.

II- TECHNICAL PROPERTIES

- Shelf system will manufactured with type which is known as shuttle type shelf system
- Stacking with palette will be performed in frozen storage rooms.
- Carrier system will be galvanized steel profile
- Static calculation for carrier system will be according tp FFM standards, and manufacturing will start after approval of administration. Dynamic earthquake loads will be considered during calculation.
- There will be three layers of carrier shelves in rooms. Palette dimensions will be 100 cm x120 cm 120 cm will be fork entry side.
- Palette height will be designed such that will have minimum 170 cm height.
- Loading will be made by forklift at first alignment of shelf, horizontal transportation will be performed by vehicle which is called as shuttle.
- Shelf capacity for the rooms will be as following.
- **Room -1 :** 5*14*3= 210 palettes.
- **Room -2 :** 6*14*3= 252 palettes.
- **Room -3 :** 5*14*3= 210 palettes.
- **Room -4 :** 5*12*3= 180 palettes. -

Room 5 : 5*12*3= 180 palettes. -

- There will be total three shuttle vehicles
- Battery which will be used in shuttle will be Lithium İron Phosphate and its capacity will be 75 Ah
- Shuttle will include safe driving system which will prevent falling shuttle from forklift's forks because of vapor and ice in cold room.
- Shuttle will be able to notify location and situation over wi fi system of Warehouse mangement system.
-Shuttle will operate with wireless communication protocol
- Which palette was loaded in which time, how long was it kept in storage and leaving time will be traceable Warehouse management system which is compliant with shuttle machine will be installed for this purpose.
- Ware house system will have dynamic reporting
- Warehouse management system will be able to communicate with shuttle over wifi.
- Warehouse management system will be able to direct according to customer or products.
-Warehouse management system will be able toe exchange information with Organizations Management Information system .
- System will use organization's existing barcode or 2 D barcode system. Information related to label content will be acquired from Organization2s existing database

- - Equipments will be able to operate at -25 C temperature

SYSTEM OPERATION

I-LOADING

- Palettes which were labeled by organization, will be read by PDA hand type barcode reader.
- Product information related to product will be read from system and will be informed to PDA hand type barcode reader display for placing into predefined storage area.
- Channel where shuttles present and their status information (occupied/free) will be displayed in PDA screen.
- Operator will place the shuttle in free position to target position after selection from PDA display.
- Shuttle will send the placed channel information to system after they are placed into channel.
- System will evaluate this information and will send the information to PDA whether it is in correct position.
- If shuttle is not in correct position, loading will not be performed even a palette is placed over it.
- If shuttle is in correct channel, palette will be automatically placed in to rack system after palette is placed over it. Inventory amount for that channel and product will be updated in warehouse system.

II UNLOADING

- Authorized operator will create transfer work order by means of relevant menu in warehouse management system.
- Transfer work orders which were created in system will be selected from display by operatır and will be put in operation.
- Selected work orders will be displayed in PDA screen automatically according to relevant location, product expiry date.
- After a free shuttle is selected, it will be automatically connected to work order by system.
- Shuttle will send channel information to system after it is placed into a channel.

System will evaluate information and will send the information whether shuttle is in correct channel to PDA screen.

- No operation will be made if the shuttle is not in correct channel.
- If shuttle is in correct channel, pallettes will automatically be started to be unloaded from rack system by means of shuttle.
- As operator takes the palettes which were brought by shuttle from racks, , both work order, and inventory and product information related to that channel will be updated by PDA hand type barcode reader

III- GENERAL SUBJECTS:

- Shelf System will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Shelf System.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Shelf System will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.

- A user manual will be prepared for Shelf System and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Shelf System and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Shelf System which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Shelf System will have CE certificate.
- Necessary precautions for worker safety should have been taken in Shelf System
- During manufacturing stage, Shelf System will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Shelf System
- Realized manufacturing will be suitable with engineering and craft rules.
- Shelf System will be delivered after being installed over system and in operable status.
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- Electricity, water, steam connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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I- SUBJECT

It is **Sanitation (Cleaning)Line** supply and installation work which will be used in Erzincan Combined Chicken Plant operational activities

II- TECHNICAL PROPERTIES

A- Automated Vertical Boot Washing Brush

- Frame, body and other auxiliary equipments of Washing Brush will be manufactured from AISI 304 grade material.
- Brushes will be automatically enabled during staff passing.
- Brushes will be have distance adjusting property for boots and shoes
- Brushes should will be demountable
- Brushes will not deform boots and shoes and will be selected from polyurethane material whose cleaning property is high and suitable with food.
- System will have an assembly which will automatically spray the disinfecting agent equally to brushes by means of nozzles while system is enabled.
- System will have entrance and exit steps.
- System will have barriers which will make staff entrance compulsory and ordered.
- System will have waste water collection container which was manufactured from stainless steel and collected water will have connection with system drain.
- Brushes will automatically be driven by electrical motors.
- Motor power will be minimum 1,1 kw
- System will have emergency stop assembly

B- Hand and Foot Disinfectant Unit Including Turnstile

- Unit will be manufactured from AISI 304 grade material
- Unit will have hand disinfectant spraying assembly including photocell
- Unit will have 10 liters disinfectant tank
- Unit will have double hand reservoir
- Turnstile will not allow staff entrance without disinfecting both hands.
- Disinfectant agent spraying capacity for both hands will be 3-6 ml
- There will be pond in unit's base which will disinfect the sides and upper parts of shoes
- There will be hygienic mat within pond which will filter disinfectant
- System will have entrance and exit steps.
- System will have barriers which will make staff entrance compulsory and ordered.

2 . STEEL GLOVES AND APRON WASHING UNIT

- Machines frame will be completely be manufactured from AISI 304 (1.4301) stainless steel material which is durable against corrosion.
-Machine will have washing and rinsing property of steel apron and steel gloves within steel drym

-Cover in front of drum will have the property to be locked from double side.
- Machine will have washing property between +15 C and +55 degrees by heating municipality water by means of electrovalve controlled open steam.
- Machine will have rinsing property between +15 C and +55 degrees by heating municipality water by means of electrovalve controlled open steam.
Machine will have sterilizing property at 82 degrees by heating municipality water by means of electrovalve controlled open steam.
-Machine will have adjustable time control system which shows washing and sterilization times by means of digital temperature display.
- Machine should have at least 3 washing programs.
- There will be start stop and emergency buttons over machine
- Machines height over ground will be adjustable
- Machine will have the capability to work at 1.5 bar pressure
- Machine's steam and water connection diameters will be at least 1/2"

3. BLADE STERILIZATOR
- Device's frame will be manufactured from 304 grade Cr Ni Stainless steel
- Device will be time adjustable.
- It will have 1 basket, 4 blades, 2 sharpening steel and 1 glove containing capacity
- Device will have the property to clean 10 baskets at once.
- Device will have a reservoir which is manufactured from stainless steel sheet to place the goods which will be sterilized and include water which will have temperature around 85 C.
- There will be electrical heater with thermostat inside device.
- Device should have capability to discharge inlet water and dirty water which were left with certain opening from upper side continuously.
- Device will be mounted over wall

4. BOOT DRYIN MACHINE
- Complete Unit will be manufactured from stainless material
- Unit will take cold air from outer environment, will heat it with electrically resistors and blow them over boots by blower.
- Unit will have mounting kit with stand.
- Unit will perform disinfection operation by ionizer.
- Unit's WXLXH will be approximately 1700 x500 x2200 mm
- Unit will have capacity to dry 40 pair 80 single boots at once

III- GENERAL SUBJECTS:

- Hygiene barrier will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Hygiene barrier.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.

- Project implementation, drawings and calculations for Hygiene barrier will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Hygiene barrier and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with Hygiene barrier and recovery methods for them.
- All equipments and manufacturing related with manufacturing related with Hygiene barrier which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Hygiene barrier will have CE certificate.
- Necessary precautions for worker safety should have been taken in Hygiene barrier
- During manufacturing stage, Hygiene barrier will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Hygiene barrier
- Electricity, water, steam connections which are necessary for machine will be implemented by contractor company. These connections cover the connections from machine unit to closest power supply line.

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I- SUBJECT

It is **Rendering Unit** supply and installation work which will be used in Erzincan Chicken Combined Plant slaughtering hall

Rendering Plant will be founded in Erzincan Chicken Combined Plant which will be founded with **8000 slaughtering/ hour** for providing the recycling of chicken wastes. Plan will render blood, bone and channel wastes. It will have **Smell** eliminating system and will not give off smell around itself. Pipe, valve, automatic control elements , pump etc additional elements which are out of below mentioned materials will completely supplied by contractor and will entirely be delivered in operating status. Firstly controller will adapt the system to be installed in rendering building based on project, will provide institution approve the project and following these will start to construction.

Electrical panel for rendering plant will be designed completely in a AISI 304 stainless steel body. Panel to be designed will have all electrical power supply, control circuits and warning signals. There will be labels over panel which indicate the mission of each control and warning signal.

Rendering Unit will compose of following modules.

1. Cooking Boiler
2. Condenser
3. Product Bunker
4. Fat Press Feeding Screw conveyor
5. Fat Press
6. Fat Pump
7. Cooling Bunker Feeder Screw conveyor
8. Cooling Bunker
9. Bagging Screw conveyor
10. Heather Separator
11. Waste collection tank
12. Blood Tank
13. Fat Tank
14. Hot Water Tank

II- TECHNICAL PROPERTIES

1. Cooking Boiler

- Its volume will be 8500 lt.
- Boiler will have double internal wall. Area between internal walls will be fed with steam. There will be minimum 10 bar operational and 15 bars test pressure.
- Boiler body will be painted with two fold dye which is resistant with heat and body will be aesthetically coated with stone wool and 1 mm aluminum sheet.

- There will be automated air discharge assembly for the air which was formed by first steam which was given to internal wall.
- There will be two types of safety valves for limiting internal pressure of body.
- Electrical motors will be included, motors will be driven with soft starter.
- Temperature and pressure between internal walls, inside shaft, and cooking area will be displayed on display panel which will be installed over boiler.
- There will be filling opening for filling the boiler. Filling cover will be safe interlocking system which will provide steam proof.
- It will be designed to cook the wastes which are generated in chicken plant.
- It can use 3000 kg/h steam and will perform cooking in approximately 4 hours and will make the product ready for release.
- Electrical power for mixer shaft motor-gear box will be approximately 55 kW
- Shaft will be connected to gearbox via coupling
- Shaft will be able to rotate bidirectional.
- Shaft will mix for both cooking and providing homogeneity, and also during discharging it will move the product towards discharge opening and provide product will go out from boiler.
- There will be paddles which were manufactured from thick walled pipes which were wrapped around pipes which will provide homogenous mixing and circulating steam through it.
- Steam feeding will be electronically controlled. (according to temperature)
- There will be condense apparatus. Released waste steam will go through condenser and will provide hot water recycling.
- Discharge opening will be hydraulically opened for discharging the cooked products.
- Released product will be designed to be poured to product bunker for transportation to fat press.(having sufficient height from ground)
- Gas pipe will make filtering at outlet and gas release will be prevented.

2. Condenser

- It will be cylindrical type
- There will be two pieces of condensers having 70 m2 surface area
- Condensers are used for obtaining how potable water from waste steam which come from cooking boilers. Hot water will be generated by recirculation of water from hot water tank by means of recirculation pumps.

3. Product Bunker

- It will take the product which was taken out from cooking bunker and take into reservoir and will provide transportation towards fat press.
- Its reservoir will have the capacity to take 2.500 kg of rendering output
- There will be screw conveyor inside reservoir which will provide product transfer.
- Screw conveyor will be driven with approximately 5.5. kw of motor gearbox group.
- Product which has come to reservoir's discharging opening will be transferred to fat press by means of fat press feeding screw conveyor.
- Its body will be resistant against high temperatures, and its construction will be designed to carry 2.500 kg load without causing permanent deflection.
- Surfaces which contact with product will be manufactured from AISI 304 grade material

4. Fat Press Feeding Screw conveyor

- It is the screw conveyor which takes the product which had come to discharge opening of product bunker and transfers to fat press.
- It will take the product from lower level of bunker and will discharge to filling opening of fat press
- Screw conveyor will be driven by estimated 1.5 kW motor gearbox group
- It will have estimated 5mt length
- It ill have the capacity to transfer 2.500 kg/h rendering output.
- Surfaces which have contact with product will be manufactured from AISI 304 stainless steel.

5. Fat Press

- Fat press will be used for decomposing the fluid fat which presents in rendering output.
- Fat press will make decomposing by hydraulic pressing.
- It will have estimated 200 ton/m2 pressing pressure
- Motor power will be estimated 37 kw
- It will have estimated 600 kg/h product processing capacity.
- Decomposed fat will be poured into fat pump reservoir.
- This fat will be transferred to fat tank by means of level controlled fat pump.
- Fat decomposed product will be poured into reservoir and will be transferred to cooling bunker cooling bunker feeding screw conveyor.
- Surfaces which have contact with product will be manufactured from AISI 304 stainless steel.

6. Fat Pump

- It will have pig casting iron body
- It will have 2m3/h and 5mss fat transfer capacity
- It will be centrifugal type pump having horizontal shaft.
- It will have mechanical structure which will provide transfer of animal fats.

7. Cooling Bunker Feeding Screw conveyor

- It is the screw conveyor which takes the product which had come to product reservoir of fat press and transfer to cooling bunker.
- It will take the product from lower level of fat press and will discharge to filling opening of cooling bunker
- Screw conveyor will be driven by estimated 3 kW motor gearbox group
- It will have estimated 5mt length
- It ill have the capacity to transfer 2.500 kg/h rendering output.
- Surfaces which have contact with product will be manufactured from AISI 304 stainless steel.

8. Product Bunker

- It will take the product which was taken out from cooling bunker feeding screw conveyor and take into product reservoir and will provide product cooling operation.
- Its reservoir will have the capacity to take 2.500 kg of rendering output
- There will be screw conveyor inside reservoir which will provide mixing product.
- Screw conveyor will be driven with approximately 5.5. kw of motor gearbox group.
- Fans will be installed for cooling the product inside reservoir

- Its body will be resistant against high temperatures, and its construction will be designed to carry 2.500 kg load without causing permanent deflection.
- Surfaces which contact with product will be manufactured from AISI 304 grade material

9. Bagging Screw conveyor

- It is the screw conveyor which takes the product which had cooling bunker discharge opening and transfer to bagging funnel
- Bagging funnel is included. .
- It will take the product from lower level of bunker and will discharge to filling opening of bagging bunker
- Lower discharge opening of funnel will have one bag height from ground and will be installed over carrier stands
- Screw conveyor will be driven by estimated 3 kW motor gearbox group
- It will have estimated 5mt length
- It ill have the capacity to transfer 2.500 kg/h rendering output.
- Surfaces which have contact with product will be manufactured from AISI 304 stainless steel.

10. Feather Separator

- Estimated dimensions are 130*160*360
- It will be installed over waste collection tank. It will be installed over stands without pressing over waste collection tank.
- It will take the waste from slaughter house waste water pond which was discharged together with water into its reservoir and will deliver the water to slaughtering house defeathering channel again and will pour the wastes into waste collection tanks. Diameter for the feeding pipe which comes from waste water pump is Ø160 mm and opening which will be implemented for water return will be Ø100 mm. There will be two pieces of Ø100 mm opening. 2. line is for discharging water by draining in necessary cases. Outlet openings will have valves.
- Surfaces which have contact with product will be manufactured from AISI 304 stainless steel.
- Decomposing process will be rendered by screw conveyor
- Screw conveyor will be driven by estimated 3 kW motor gearbox group
- Body will be manufactured from AISI 304 stainless steel.
- It will have the capacity to decompose 60 m3/h waste-water mixture per hour.

11. Waste Collection Tank

- It will store the waste which was decomposed in separator over the waste collection tank.
- It will have approximately 3500*5000*2300 mm dimensions
- There will be 3 mixer screw conveyors under reservoir
- 3 Separate screw conveyors will be driven by 3 separate motor gear box group having 5,5 kw power. There will be manually controlled discharging opening which will directly pour the waste into cooking boiler. Proper transfer solution will be applied until cooking boiler.
- Body will be manufactured from AISI 304 stainless steel.

12. Blood tank

- It will store the blood which was pumped by blood pump and will discharge into cooking boiler by means of manually controlled discharging opening.
- Proper transfer solutions will be applied for transfer to cooling boiler.
- It will have double outlets, and it will be designed such that it will be proper for the truck which may approach to rendering plant because of the possibility of selling blood.
- Body will be manufactured from AISI 304 stainless steel.
- Its structure will be like funnel. It will be installed over carrier stands.
- Its capacity will be 10 tons of blood.
- It will be installed in upper flat of rendering building.

13. Fat tank

- It will store fat which was pumped by fat pump and it will be designed to allow loading the truck which may approach to rendering building by means of manually controlled discharging opening.
- Body will be manufactured from AISI 304 stainless steel.
- Its structure will be like funnel. It will be installed over carrier stands.
- Its capacity will be 2 tons of fat
- It will be installed in upper flat of rendering building.

13. Hot Water Tank

- There will be prismatic 50-60 tons of modular stainless steel water tank. It will be completely compliant with technical specification regarded with **BBF.105.649**unit price which is one of unit prices that was released by Ministry of Public Works.
- Additionally all surfaces of tank will be isolated with Rubber foam which was laminated with Aluminum Foil.
- Lines and equipments which will provide connection with hot water accumulation tanks in boiler room will be implemented by contractor.

III- OTHER SUBJECTS:

- Unit will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for Unit.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations for Unit will be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared for Unit and will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the

equipments which are necessary to be used and information about probable failures related with Unit and recovery methods for them.

- All equipments and manufacturing related with manufacturing related with Unit which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- Unit will have CE certificate.
- Necessary precautions for worker safety should have been taken in Unit
- Unit will be suitable with European Union food safety
- During manufacturing stage, Unit will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of Unit
- .
- Electricity, water, steam etc. connections which are necessary for rendering unit will be implemented by contractor company. These connections cover the connections from feather softener unit to closest power supply line.

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Elec. Maint. Installation Chief

M.Senih YENEL
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Bagdagul GUNGOR
Vice Manager

Seydahmet ÖZKAN
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I- SUBJECT

It is **Box Shrinking Machine** supply and Installation work which will be used in Erzincan Chicken Combined plant

II- TECHNICAL PROPERTIES

- Machine will have the property to shrink chicken coli having minimum width*length*height= 40*60*15 cm dimensions.
- Machine will have the speed to shrink 400 boxes per hour.
- Machine will be pneumatically operated.
- It will lave digital thermostat controlled hot jaw system.
- It will have tube resistance
- Heating control will ensure homogenous distribution.
- It will have heat insulation
- There will be fence band conveyor transportation system which is coupled at inlet and outlet of machine.
- It will be speed controlled.
- Sticking length will be minimum 670 mm
- Tunnel inlet will be minimum 600 mm and height will be minimum 300 mm
- It will use polyethylene film.
- It will be able to make fil m coating up to 150 micron
- Conveyors speed will be capable to shrink 800 boxes per hour.
- Furnace heating will be time scheduled.
- Machine shrinking operation will be full automated.
- Machine will drive nylon with 2 AC motors, it will alarm when naylon finishes and will stop.
- Band which is at outlet of machine will have antistatic property
- Machine will perform all operations PLC controlled.
- There will be safety system sensors for preventing hand jamming.
- Doors will ve sensor controlled for safety.
- There will be emergency stop buttons for safety
- Sticking time and heat will be asjustable

III- OTHER SUBJECTS:

- **Box Shrinkng machine** will be suitable with subjects which are specified in technical specification.
- Two years warranty will be granted for box labeling machine.
- All materials which are or will be necessary during manufacturing or installation will be supplied by contractor.
- Project implementation, drawings and calculations forbox shrinking machinewill be implemented by Contractor and will be approved by Administration.
- Manufacturing and installation will not start before approval, manufacturing and installation will be made according to approved projects.
- A user manual will be prepared forbox shrinking machineand will be delivered together. This user manual should include technical information related with system, detailed information and drawing which explains all safety instructions related with installation, usage and maintenance, (installation electrical connection schemes etc), maintenance instruction which explains all maintenance operations together with table and drawing if necessary including the equipments which are necessary to be used and information about probable failures related with box shrinking machineand recovery methods for them.

- It All equipments and manufacturing related with manufacturing related with **Box shrinking machine**which should be done but not specified in specifications will be implemented by contractor accordingly with engineering and craft rules.
- **Box shrinking machine**will have CE certificate.
- Necessary precautions for worker safety should have been taken in **Box shrinking machine**will be suitable with European Union food safety
- During manufacturing stage, **Box shrinking machine**will be controlled by institution's officials and company will be liable to provide all kind of support about this subject.
- After startup of system, Contractor company will instruct training to user's technical s staff about usage, maintenance and repair intervention and notification of **Box shrinking machine**

Electricity, water, steam connections which are necessary for **Box shrinking machine**will be implemented by contractor company. These connections cover the connections from dish boxing andbox shrinking machineunit to closest power supply line

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